Lowry Nelson

Some Social and Economic Features of American Fork, Utah

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No. 4

Some Social and Economic Features of American Fork, Utah

BY
LOWRY NELSON
Professor of Rural Social Economics and
Dean of the College of Applied Science

The Division of Research, Brigham Young University and the Bureau of Agricultural Economics, United States Department of Agriculture, cooperating.

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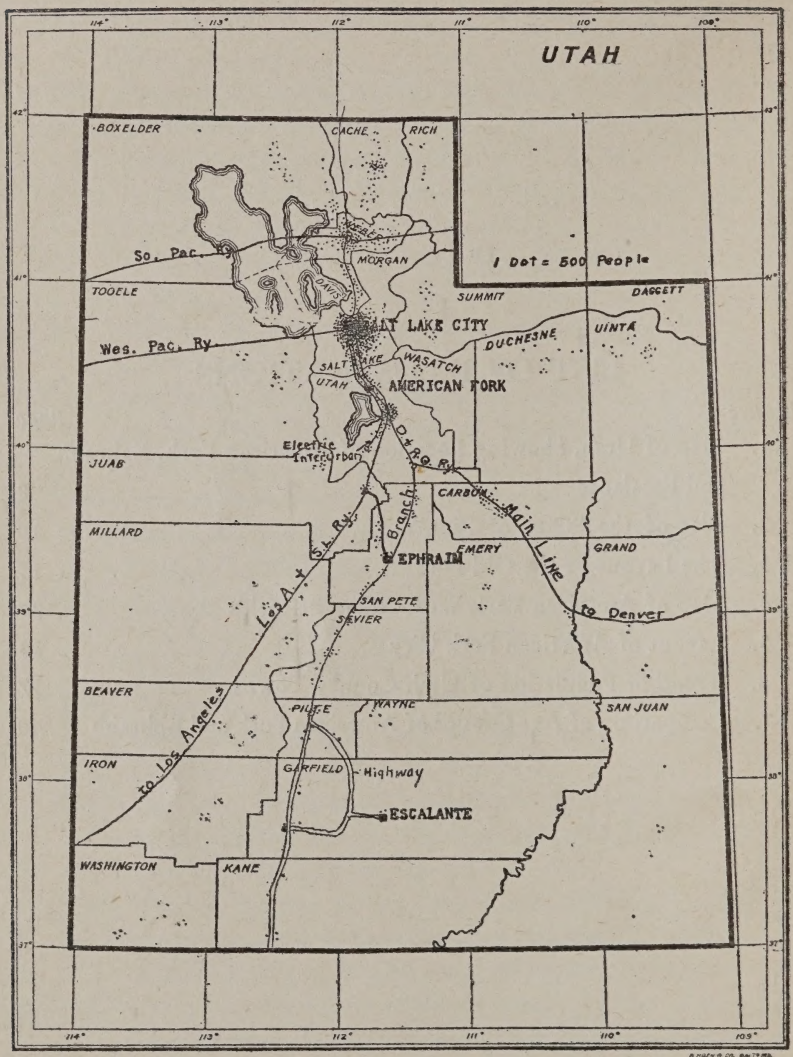

FIGURE 1. Map of Utah, Showing the Location of American Fork, Ephraim and Escalante, the Communities Surveyed in this Series of Studies.

PART I

INTRODUCTION*

This is the third in a series of community studies all of which aim to give the "social anatomy"—to use Dr. C. J. Galpin's phrase—of specific Utah rural communities.[1]

The study of Escalante, a community of 1,000 people, revealed to some extent the social and economic institutions and the behavior patterns of a group living under rather extreme conditions of isolation. Ephraim, with 2,000 people, represents a type of community which is relatively less spatially isolated, while the subject of the present study, American Fork, is still less isolated, being located within 35 miles of Salt Lake City. American Fork has almost 3,000 people.

Method. The studies have been made by the survey method. Preliminary information was gathered through interviews with local people, and through consulting such secondary sources as published histories, if any, school reports, census reports, and so on. A most important source of information was local persons, who through long residence in the community were in a position to give important facts, especially those relative to earlier history. A survey schedule was taken to each home in the community by a field investigator. These schedules constituted the basis for the tabulated material in this report.

Where data are comparable, comparisons will be made with results secured in Ephraim and Escalante.

Revised Theory of Origin. In the first bulletin in this series,[2] the writer proposed the usual theory of the origin of the Mormon village. That theory is that the institution was the outgrowth of environmental conditions in the Great Basin and the ingenuity of Brigham Young. This is largely false. In the first place, the plan on which the communities in the Great Basin were laid out by the Mormons was announced in a letter of June 24, 1833, signed by the First Presidency of the Mormon Church, Joseph Smith, Sidney Rigdon, and Frederick G. Williams. This "Plat of the City of Zion," as it is known, was intended to guide the Latter-day Saints in Missouri in laying out the "New Jerusalem." It also constitutes the plan, with minor variations in cases, on which most of the Mormon communities were laid out in the Great Basin.

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*The material for this bulletin was secured by the cooperation of the Division of Farm Population and Rural Life of the Bureau of Agricultural Economics in the U. S. Department of Agriculture, Dr. C. J. Galpin, in charge. The writer wishes to express indebtedness to Mr. Nathan Whetten, now of Connecticut Agricultural College, and Mr. N. I. Butt, library and research assistant of Brigham Young University, and to Mr. Lynn Smith, now of Louisiana State University, for assistance in collecting and tabulating the results.

[1]Two previous studies already published are, "A Social Survey of Escalante, Utah," (1925) *Brigham Young University Studies* No. 1; and "The Utah Farm Village of Ephraim," *B. Y. U. Studies* No. 2.

[2]*Brigham Young University Studies* No. 1, "A Social Survey of Escalante, Utah," (1925) p. 4.

The village plan was, therefore, neither due to environmental conditions in the Great Basin, nor the presence of Brigham Young.

That the environment of the Great Basin was favorable to the village system cannot be gainsaid. That the dynamic leadership of Brigham Young went far to assure the perpetuation there of the village system, must likewise be considered as important. But these influences obviously had nothing to do with the originating of the plan.

The entire problem of probable origin of the Mormon community system is one which obviously cannot be discussed in this bulletin. Suffice it to say that it grew out of certain ideologies of the early Mormon group derived from the cultural *milieu* of the Eastern United States in the early part of the Nineteenth century.[8]

Present Extent of the Village. The question has been raised as to the probable per cent of the rural people of Utah who live in the villages as opposed to the open country or isolated farmsteads. This question is not susceptible to an exact answer with data available in existing sources.

An estimate, arrived at through subtracting the population living in incorporated places and that living in unincorporated villages which were known to the writer as being farm villages, places the "open country" population of Utah at approximately 75,000. The areas of concentration of isolated farms are largely of two classes: (1) the populous sections; and (2) the most recently settled sections. Thus the counties which would come under the first class are Salt Lake, Utah, Weber, Cache, and Davis, where, according to the estimate, 57,000 of the total open country population reside. In the second class are the counties of Duchesne, Uintah, Millard, and Box Elder, all of which have experienced rather recent settlement. The latter four counties, according to the estimate, contain about 18,000 people living in the open country, or outside villages.

In the first class of counties, namely, those which are more densely populated, it should be borne in mind that the farms are usually small, and intensively cultivated. For example, while the Provo Bench area in Utah County, or much of the area in Davis county, would classify as "open country," the small acreage per farm places the farm residences relatively close together. Practically all of the farms in these areas, for example, are served by electric power lines, and have running water, and other conveniences which under ordinary open country conditions would be economically impracticable.

The Existence of the Village. The village system of life is one of the most important facts in the lives of Utah people. It modifies their existence in innumerable ways. It places economic burdens here, but provides conveniences and release from economic costs there. It probably accounts for the fact that Utah has a larger proportion of her population officially classified as "urban-farm" than has any other

[8]The writer has discussed this problem in his Ph. D. thesis entitled: "The Mormon Village: A Study in Social Origins." (ms.) An abstract of this thesis is included in *Proceedings of the Utah Academy of Sciences,* Vol. VII. (1930); and reprinted as *Brigham Young University Studies,* No. 3.

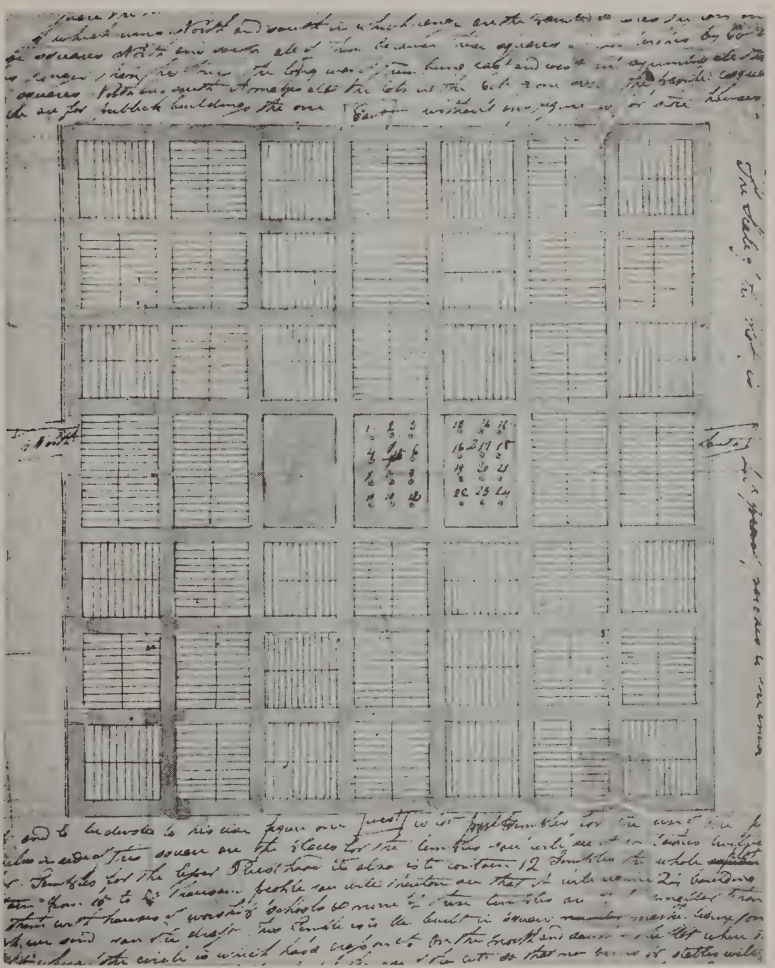

FIGURE 2. Reproduction of the plat of the "City of Zion." The original is in the possession of the Church Historian, Salt Lake City, Utah.

State.[4] It doubtless accounts for the fact that Utah had in 1920 a larger percentage of its farm homes equipped with electricity than was the case in any other State of the Union,[5] and in 1930, still ranked only slightly below the two leading States.

It has changed and still continues to change the social aspects of rural life in Utah. Instead of isolation, the farmers practically all have community life of a very stimulating and intimate kind. The Utah farmer has a municipality. The "township" does not exist except on the official description of property. It is not a social or political entity. The village community offers political, social, and economic opportunities which are distinctive.

But it is far from the purpose of this study to argue the case for the village mode of life. That is quite unnecessary. The Utah farmers will take their choice, as to whether they will live out on their farms or maintain their residence in town. There are advantages and disadvantages on both sides, and the decision as to which is best must in the end be made by the individual concerned.

PART II

THE PHYSICAL ENVIRONMENT OF AMERICAN FORK

American Fork is located in Utah Valley near the north end of Utah Lake, fifteen miles north of Provo, the county seat, and thirty miles south of the State capital, Salt Lake City. Three railroads, the Denver and Rio Grande Western main line, the Salt Lake and Los Angeles main line, and the Salt Lake and Utah (interurban) line, pass through the town.

The town is on American Fork creek, about six miles from the point where that stream issues from the mouth of American Fork canyon. This canyon is one of the show places of Utah. Mt. Timpanogos, 12,000 feet above sea level, towers a mile and a half above the valley floor on the east. Utah Lake lies about two miles to the west of the city proper.

The entire area slopes gently toward the lake to the west.

Climate. The average date of the last killing frost in the spring for this section as indicated by the official U. S. Weather Bureau station at Lehi, three miles to the north, is May 16, while the average date of the first killing frost in the fall is September 19. This record is for nine years.[1] The latest killing spring frost recorded at the Lehi station was June 13, while the earliest in the fall was September 11. This indicates a normal growing season of 125 days.

The mean annual precipitation for the section for the period 1904

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[4]*Census Monograph* IV, "The Farm Population of the United States," p. 43.

[5]*U. S. Census,* 1920. The percentage for Utah is 43.4 while that for the next highest state, California, is 25.9 per cent.

[1]Weather data is taken from *"Summary of the Climatological Data for the United States by Sections,"* published by the Weather Bureau. Records cover the period from the establishment of the stations to 1920, inclusive.

to 1920, was 15.31 inches. This is sufficient to make dry-farming possible, and a considerable area of land above the canals is devoted to this purpose. The mean precipitation is distributed by months as follows:

Month	*Inches Precipitation*
January	1.64
February	1.56
March	1.48
April	1.42
May	1.60
June	0.58
July	0.89
August	1.01
September	1.33
October	1.47
November	0.96
December	1.37

The amount of the annual rainfall varies during the period of the records from a low of 8.56 inches to 21.22 inches. Obviously, such a fluctuation makes dry-farming rather hazardous.

Temperature records indicate a mean annual temperature of 48.3 degrees, varying from a mean maximum of 63.2 to a mean minimum of 33.3 degrees. The highest temperature recorded in the period was 102, and the lowest was 23 below zero.

Water Resources. The economic life of American Fork is dependent upon an adequate supply of water for irrigation purposes. If this fails, the community suffers. Variation in agricultural production follows variation in the annual precipitation as is the case everywhere on the earth's surface. Owing to the existence of irrigation, these fluctuations probably do not prove as disastrous as they would in dry-farming regions. In the case of a light snowfall in the mountains, the water supply is inevitably diminished, but is never entirely shut off.

The chief source of irrigation water is American Fork river. There are no reservoirs on the watershed of this river so that the supply of water available for irrigation is somewhat irregular during the season. Figures for the rate of flow for two different years are given in Table I.

It is evident that the stream flow varies not only from month to month, but from year to year as well. There is the flush of high water in the spring of the year when the flow of the stream is ten times or more what it is in the fall or early spring. At this season, the surplus flow is emptied into Utah Lake. Were it possible to store this water in mountain reservoirs, it could be held for use later in the season and the agricultural efficiency of the water very much enhanced. In 1900, the "high water" came in May, while in 1912, it held back until June. Variation in the figures may be accounted for in part by different dates of taking the measurements, but it seems quite clear

Table I. *Monthly Discharge in Second-Feet of American Fork River.*[2]

Month	Discharge in second-feet	
	1900[a]	1912[b] (mean)
February		16
March		20
April		30
May 29	241.64	
May		164
June 29	85.52	
June		254
July 13	46.18	
July 28	38.17	
July		102
August 10	32.51	
August 27	30.33	
August		47.9
September 14	28.85	
September		33.2

[2]Data for 1900 from Elwood Mead, *Report of Irrigation Investigations in Utah*, U. S. D. A., Office of Experiment Stations, Bulletin No. 124, p. 143. Data for 1912 are from Ralf R. Woolley, *Water Powers of the Great Salt Lake Basin*, U. S. Geological Survey, Water Supply Paper 517, p. 245.

(a) Records taken on specific dates as indicated.

(b) Records represent mean monthly discharge. Discharge for February, March, and April are estimated.

that the season of 1900 was much "earlier" than that for 1912, and the water supply available for the maturing of crops considerably less. The annual precipitation for 1900 was 11.38 inches, and for 1912, 18.49 inches.[3] That the agricultural production per acre varies with the precipitation is, of course, a mere axiom.

Land Masses and Soil Types. The agricultural land of American Fork is the product of the erosion of igneous and limestone formations. The predominant soil type immediately adjacent to the town is heavy clay loam with an acid base. This is somewhat extraordinary for Utah soils, most of which are heavily alkaline. The bench lands towards the mountains are gravelly, while the bottom lands are lighter loams which have resulted from the action of the lake in mixing sand with the heavy clay.

These heavy soils are very productive and have been found especially suitable for sugar beets and other crops which permit greater application of labor and capital to the acre. This fact, together with the advantageous location of the community, has been an important factor in the growth of the town. It has taken it longer to reach the maximum limit of its economic expansion as a result of these and other ecological factors.

[3]*Climatological Data for the U. S. by Sections*, Section 11, Western Utah, p. 3. (Data for Alpine, Utah, a few miles from American Fork.)

PART III

HISTORY OF SETTLEMENT

The Colonizing Policy of the Mormon Church. No time was lost by Brigham Young and his associates in discovering the suitable places for settlement up and down the Great Basin country. The foundations of more than twenty communities had been laid by 1850, three years after the first party arrived in Utah. A more or less definite program of colonizing was devised. After an exploring party had decided favorably upon the merits of a particular section, a group of families was "called" by the President of the Church to go there and settle.

In order to insure the economic success of the undertaking, some attention was paid to the occupational composition of the group, in order that the new community be as nearly self-sufficing as possible. That is, the group chosen would contain carpenters, blacksmiths, and other tradesmen as well as farmers.

American Fork creek was a favorite camping place for Ute Indians long before the white man came to the Great Basin. This mountain stream, according to the testimony of early settlers, abounded in fish. Deer grazed in the natural meadow lands through which the creek winds its way to Utah Lake, while in the Lake itself, there was also an abundant supply of fish.

After the coming of the Mormons to Salt Lake valley in 1847, exploring parties were sent out to find the most suitable places for settlements. Such settlements were established in sections farther south in Utah county before one was definitely established on American Fork creek. During this time, travellers to the settlements south, especially to Fort Provo (15 miles south), camped on the present site of American Fork. It was while they were on a trip to Provo in 1850 that Arza Adams, his son, Nathan Adams, Stephen Chipman, and his son, Henry Chipman, decided the country would be a good place in which to found a settlement.

On their return to Salt Lake City, Chipman and Adams, together with Ira and John Eldredge, went to President Brigham Young and asked him as to the advisability of their settling on American Fork creek, and he replied, "Go, and take up what land you want."

It appears that the object of these men at first was merely to form a company for the purpose of operating a ranch. Seven men were finally interested in the project. In addition to those mentioned, there were Mr. Eldredge, father of the Eldredge brothers, Barney Adams, and Washburn Chipman.

In July, 1850, some of the men came down to survey the tract which had been selected as desirable for their purposes.[1] This tract

[1]The survey party was requested by President Heber C. Kimball, first counselor to President Young, to survey a tract of land adjoining the "Big Survey" for him. This was done, according to the testimony of Mr. Washburn Chipman (1830-1926). According to the records, however, he did not alienate this land in his own name, if at all. Most of the land in American Fork was patented in 1870 and in the years immediately following.

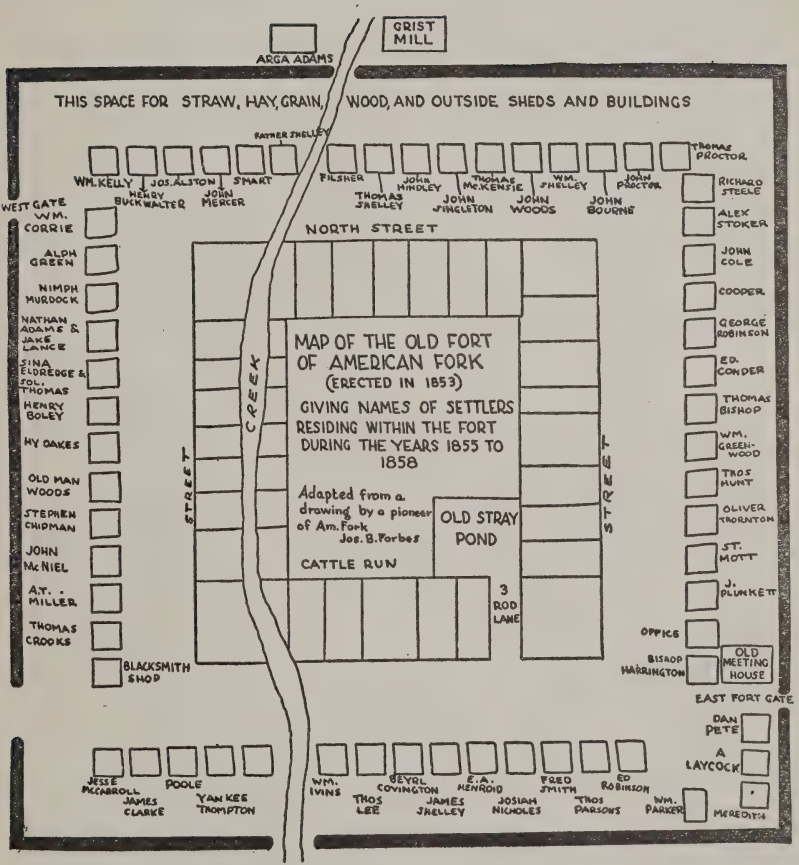

FIGURE 3. Map of the Old Fort in American Fork, according to a drawing of Joseph B. Forbes.

was called the "Big Survey" and included about two sections, taking in most of the area within the present townsite and the natural meadows towards the lake. It is an interesting fact that these first-comers to the Great Basin regarded the bottom lands as the most valuable. However, they were soon found to be too heavily charged with alkali for ordinary crop production, and as a result the lands midway between the higher and lower elevations were utilized. It was some years later before water was brought on to the bench lands, thus rendering them subject to utilization for crop production. Formerly they constituted grazing land for the livestock of the community.

The original idea of making one large ranch out of the country was soon abandoned, and the land was divided among the settlers. The precise reason for this action is difficult to ascertain. The history of American Fork differs from that of most Mormon settlements in this expression of individualism. Usually, the new settlement is a "community" from the very beginning.

The settlement was known as Lake City until 1860. Settlers poured in rapidly, and on September 18, 1852, a mass meeting decided to have a city surveyed on the creek. As soon as the survey was completed, people began to erect houses. Not all of the houses were built on the townsite at first, but Indian troubles in the early 'fifties made it expedient that isolated homes be removed to the village site. Moreover, it was decided to build a fort for protection. The fort walls were intended to be 12 feet high of brick and adobe, but the structure was never finished.

Early Institutions. The first flour mill was established in American Fork by Arza Adams in 1852. This was the first grist mill in Utah county. This was a burr mill. After the wheat was ground, it was placed in a cylindrical drum covered with coarse woven silk. The drum was inclined at an angle and revolved, and as it did so, the finer flour was sifted through and recovered, the coarser portion being recovered at the bottom of the drum as bran. This mill burned soon after it was built.

The timber supply for the little settlement was secured from American Fork canyon. The sawing of the logs was done at first by means of pit saws. A pit was excavated which would accommodate a man using a saw beneath the log. The log was sawed into boards by two men using the hand saw, one on top the log, and the other in the pit beneath. Two good pit sawers could saw five hundred feet of lumber in a day. Much of the timber for the first railroad was prepared by this method.

The first homes were built of rough logs. The sides were built up to the desired height and covered with a shed roof, also of logs. Between the roof logs were placed chips and the whole covered with several inches of mortar, on which in turn was placed a layer of dry dirt. The sides were chinked and plastered with mortar in typical pioneer style. In the absence of window glass, the early American Fork homes used oiled paper instead. The floor of the house was usually the ground itself.

It was later discovered that the soil would make 'dobies, and many

houses were built from them. In many instances, to avoid the necessity of hauling some distance, the 'dobies were made right on the lot on which the house was to be constructed.

Most American pioneers have had to be largely self-sufficing. In the early days of Utah, before the coming of the railroad, this was particularly the case. Mr. Washburn Chipman testifies that during the first fifteen years of his life in American Fork, he wore practically nothing but buckskin clothing. The spinning wheel and the loom, however, were common to most American Fork homes, and there were those who did "custom work" on their wheels and looms.

The difficulty at first was to get the materials for weaving. Cotton warp brought in from the East cost "five dollars per five-pound bunch." Wool grown by the settlers themselves was the chief textile for making cloth. Flax was grown to a limited extent, and some linen manufactured from it.

The first shoes were made by hand, sometimes by an itinerant shoemaker who would come to the home and make enough shoes for one family before moving on to the next. Not all families could afford a complete supply for all members of the family, however. Moccasins secured from the Indians supplemented the usual source of supply of footwear for the community.

For the most part, furniture for the home, and implements for the farm were home-made. Chairs, tables, beds, cupboards, and other household equipment were made from local materials by hand. Bed springs were very rare, we are informed by Mr. Washburn Chipman, and the ownership of such constituted a mark of social distinction.[2] As a usual practice, "springs" were constructed from rope stretched from post to post, and woven roughly to form a support for the bed-tick of straw. Oftentimes the ropes were of rawhide. When the bed sagged, the remedy was to tighten the ropes.

The early farm implements were largely of wood material. The shortage of iron before the railroad came made this necessary. The super-structure of the great tabernacle built in Salt Lake City during this period was constructed without the use of metal nails. Nails for the Salt Lake Theatre were made by blacksmiths from tires of the wagons of Johnston's Army. So in the construction of implements, wood constituted the major portion. Harrows, for instance, were made by placing scrub mahogany pegs into cross beams. Plows were usually entirely of wood with the exception of the share. A forked stick with two or more prongs was popular as a pitch-fork. The scythe was first used as the chief harvesting implement, but was soon superseded by the cradle. The grain was threshed by means of the flail or by "tromping." The technique of threshing by the tromping method is about as follows: several oxen or horses were tied to a central hitching post

[2]As much cannot be said for the ownership of a suit made of broadcloth, for, according to our venerable informant, a contemporary of his, one Josiah Nicholes, possessed such a suit which he had brought with him from a more opulent environment, but refused to wear it, because it was so far out of harmony with the prevailing mode of bucksin dress. The frontier community creates its own scale of economic values, completely disregarding the values of the older communities.

and made to walk about the post in one direction only. Bundles of grain were placed in the way of the animals, with the heads of the bundles inclined toward the animals. Thus the heads would be stepped on first by the animals. The first horse-power thresher was a crude wooden machine built by Robert Crooks. Crooks had been a blacksmith in Nauvoo before coming west with the Mormon migration. This machine was capable of threshing about two hundred bushels of grain a day. The straw, chaff and grain all came from the machine unseparated. The grain subsequently was separated by winnowing.

After a brief period of domestic manufacturing, much of the clothing was made in the cooperative manufacturing enterprises, including a boot and shoe factory and a tannery.

Agencies of Communication. It has already been intimated that American Fork was on the main wagon road which connected Salt Lake City with the settlement to the south. It accordingly enjoyed more than the usual amount of contact with the large centers, for a pioneer settlement. Travellers on their way to southern points frequently passed through the town. It was necessary for the community to build its own road into the canyon, however. This was the only source of timber for the settlement, and a temporary road had to be built in the very beginning in order for them to secure timber for building houses. A more permanent road was made during 1876.

November 20, 1867, the local office of the Deseret Telegraph Company opened in American Fork. The lines of this company connected Salt Lake with various settlements to the south, including American Fork.

A narrow gauge railroad was built from American Fork into American Fork canyon in 1872. This was built largely because of the mining development which was taking place in the canyon.

The completion, in 1873, of the Utah Southern Railroad to the northern part of Utah county placed American Fork for the first time in touch with Salt Lake City by rail. The railroad was opened for traffic as far south as American Fork on September 23, 1873.

Mining Development. A flurry of excitement ran through the little village in the early 'seventies on account of the discovery of ore in the canyon. Mining was early condemned by Brigham Young as an undesirable enterprise for the Mormons to engage in. It will be recalled that in 1849, just two years after the arrival of the Mormons in Salt Lake valley, gold was discovered in California, and Brigham Young had no small job on his hands to prevent his followers from participating in the general stampede to California. Only by the most vigorous exercise of his authority, was he able to hold his group together.

The development of mining in American Fork canyon was, therefore, not a project of the Mormon settlers. This was, presumably, the work of "gentiles." The attitude of the local community towards this adventitious economic movement is suggested in the following communication sent by one of the Mormon settlers to the Deseret News:

"Several gentlemen prospecting for mines in American Fork are reported doing very favorably. Reliable parties report from Camp

Floyd mining district a number of very large veins of milling ore. One, called 'Silver Cloud,' resembles in size and appearance the celebrated Comstock Lode. The 'Mormon Chief' has been raked over about a mile in length and appears very large. One vein of 400 feet was sold for $6,000, several others being prospected with very good indications. Our people, generally, realize that attending to their farms, stock, and mechanical pursuits, is the surest way to get rich."

American Fork canyon has produced mines of considerable importance and a great deal of wealth has come out of it.

Pioneer Commerce and Trade. In common with practically all pioneer communities, barter was the chief method of exchange. Commodities and services were paid for with commodities and services. The school teacher was paid in produce or labor for his services. While the mason laid the 'dobies for your house, you would be harvesting or planting his crop, or breaking a horse for him.

Trade in the Utah colonies was greatly stimulated, however, by the coming of the California gold rush. It virtually broke up the necessity of self-sufficiency, since there was so much merchandise brought in by these people which they were happy to exchange for farm produce. It was then that the Mormon settlers began to get "store clothes" and other than home-made implements.

Brigham Young is credited with establishing a species of "chain stores" when in 1868, he organized Zion's Cooperative Mercantile Institution (known as Z. C. M. I.). "Branches" were established in practically all of the Mormon settlements. They were simple stock companies. Everybody was given an opportunity to subscribe stock. Payments for stock could be made in cash, produce, or labor.

The American Fork Cooperative Institution was incorporated on February 15, 1873. The articles of incorporation provided for carrying on "the business of general merchandising, manufacturing, and such other branches of industry as may be beneficial to the interest of the institution." The capitalization authorized was $100,000.00 in shares of $25.00 each. The company officers were a president, vice-president, secretary, treasurer, and board of directors, who should all be stockholders and were elected every two years by the stockholders. Not more than five per cent of the profits could be held as a reserve fund. Voting in stockholders' meetings was on the basis of a vote for each share of stock, although, in the board of directors, the one-man-one-vote method was provided.

The thirteen original incorporators subscribed for various amounts of stock, the least number of shares subscribed by one man being seven and the largest, thirty-five. Thus, it is obvious that the cardinal principles of true cooperative enterprises were violated at the outset in the case of the American Fork store.

Undoubtedly, Brigham Young aimed at establishing real cooperative enterprises, but the form of organization which could best achieve this result was not as well known then as it is today. Adequate safeguards were not provided in the articles of incorporation to insure the permanence of the cooperative element in the organization.

Accordingly, in the course of time the "Co-op" in each of the

Mormon communities became just another private enterprise, and was a "cooperative" in name only. Of all these "cooperative" stores established in Utah, the one in American Fork maintained its identity longest. It was sold by the stockholders in 1930.

American Fork Pioneers in Public Education. A log school house was erected in the winter of 1851-1852. William Greenwood and Joseph B. Forbes were the first teachers. Old and young attended and paid the teacher in produce or service. It was not uncommon to have a father and son in the same class. Books were few. People used whatever books they had. Especially important as a text-book was the Bible. Many learned their "letters" from this book. The Book of Mormon was also used a great deal. These books, together with a few stray arithmetics, spellers, and readers, made up the store of books. The furnishings of this early educational institution were typical of the frontier. They were, of course, home-made. Long benches, without backs, constituted the seats for the "scholars." Later a long table was provided upon which they could write.

This school was a private one. That is, the student paid a tuition for the support of the teacher and other operating expenses. But a movement for public, tax-supported schools in Utah Territory had its origin in American Fork in 1867. Leonard Harrington, Mayor of American Fork and representative of Utah and Wasatch counties in the Territorial legislature, introduced and secured the passage of a bill in the session of 1867 which provided that any school district in the Territory might support its schools out of public taxes if such action were authorized at an election duly called. Pursuant to this law, Mr. Harrington was instrumental in securing an election in American Fork and the free-school advocates won by the narrow margin of one vote. American Fork, therefore, had the first free public school in Utah.

PART IV

THE MORMON LAND SYSTEM

The land on which American Fork was established was part of the territory ceded to the United States by Mexico in the treaty of Guadalupe Hidalgo in 1848. No provision existed for the official alienation of this land from the public domain until the establishment in March, 1869, of the United States Land Office in Salt Lake City.

In the meantime the settlers had had their plots of land laid off and had enclosed them with fences. That is to say, they blocked off their farms before the Federal survey was made. Thus, when the Federal survey came through, we had the unique instance in America of one land system being super-imposed upon another.

Pending the instituting of Federal supervision in the disposal of land, the Territorial government assumed authority. Some central responsibility was indispensable to insure the orderly settlement of the country. In 1852, the legislature provided that in the case of a transfer of land parcels, the vendor should make and execute a quit claim,

and acknowledge it before the recorder of the county in which the property was located. This applied to surveyed lands only, and in January, 1855, provision was made also for the transfer of unsurveyed lands. The legislature in 1861 further secured the rights to ownership of the possessor of lands in the new country. This practically made effective for the Territory the provisions of the Federal Act of 1841, insofar as it recognized the rights of the squatters.

Section 1 of the Act of 1861, passed by the Territorial legislature, provides as follows:

"Any person who has inclosed or may hereafter inclose a portion or portions of unclaimed government land, or cause it to be done at his expense; or has purchased or may hereafter purchase such inclosure; or erect, caused to be erected or purchased any building or other improvement thereon, or may hereafter do so is hereby declared to be the lawful owner of the claim to the possession of such inclosed land, and the lawful owner of the improvements thereon and thereunto appertaining; and they shall be so deemed and held in all legal proceedings and in all rights and doings pertaining or relating to the aforesaid property."

Obviously, this placed a premium upon fencing, since this was the chief consideration upon which property right to a given area of land was determined. As Thomas[1] points out, this stricture placed an automatic limitation upon the size of the holdings, since the expense of fencing was such that few if any were able to undertake the enclosure of extensive areas.

How Land Titles Were Acquired. After the establishment of the Federal Land Office in Salt Lake City in March, 1869, the land which had been held by some of the settlers for 22 years was officially entered and title thereto secured under provisions of various land acts. In the case of lands in the area under consideration, title was secured chiefly under the Homestead Act of 1862, the Townsite Entry Act of 1869, the Military Bounty Law of 1855, and the Purchase Act of 1820. The details of this alienation are shown in Table II.

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[1]Thomas, George, *The Development of Institutions Under Irrigation*, 1920, p. 38.

Table II. *Federal Land Acts Under the Provisions of Which American Fork Lands Were Alienated From the Public Domain.*

Location Name of Entrant	Year of Entry	Acres	Federal Act
Section 1			
Nils C. Heisett (R-116)	1883	160	May 20, 1862
Edw. Winn (0.471)	1881	160	May 20, 1862
Arza Adams (V-22)	1875	120	May 20, 1862
James F. Pullen (10-282)	1876	160	May 20, 1862
Geo. D. Robinson (9-249)	1889	40	Apr. 24, 1820
Section 2			
John Hegan (0-396)	1881	160	May 20, 1862
Wm. Householder (R-3)	1882	160	May 20, 1862
Hannah Briggs (0-395)	1878	160	May 20, 1862
Geo. Spratley (0-437)	1882	160	May 20, 1862
Section 3			
Albert Preece (V-147)	1886	160	May 20, 1862
George Comer (9-273)	1887	160	Apr. 24, 1820
Harry Savill (13-78)	1890	160	May 20, 1862
Franklin T. Gray (34-507)	1882	160	May 20, 1862
Section 6			
John Brook (R-339)	1883	160	May 20, 1862
Jane Reeves (28-192)	1882	160	May 20, 1862
Section 7			
Phillip Olmstead (J-45)	1877	80	May 20, 1862
Wm. Southwick (85-417)	1880	160	Apr. 24, 1820
James S. Gray (45-208)	1885	166	Apr. 24, 1820
Section 10			
James Steward	1876	160	May 20, 1862
George Mitchell	1875	160	May 20, 1862
John Mitchell	1875	160	May 20, 1862
George Jacklin	1874	160	May 20, 1862
Section 11			
David Wagstaff	1874	160	May 20, 1862
John Crompton	1875	160	May 20, 1862
Eugene Henroid	1882	160	May 20, 1862
Section 12			
Isaac Abel	1876	160	May 20, 1862
Richard R. Steele, Jr.	1887	160	Apr. 24, 1820
Arza Adams	1875	40	May 20, 1862
John Condor	1887	40	Apr. 24, 1820
F. W. Webb	1884	40	May 20, 1862

Location Name of Entrant	Year of Entry	Acres	Federal Act
Section 13			
Wm. Greenwood	1874	160	May 20, 1862
L. E. Harrington, Mayor	1872	160	March 2, 1869
Wm. H. Robison	1875	160	May 20, 1862
Ebenezer Hunter	1875	160	May 20, 1862
Section 14			
L. E. Harrington, Mayor	1872	320	March 2, 1867
Eliza Allen	1875	160	May 20, 1862
Samuel Wagstaff	1874	160	May 20, 1862
Section 15			
John Hindley (J-129)	1875	160	July 2, 1862
Alphonso Green (J-513)	1875	160	May 20, 1862
Jacob Varney (V-333)	1876	120	May 20, 1862
Alva A. Green (3-301)	1875	160	May 20, 1862
Samuel Mulliner	1875	40	Apr. 24, 1820
Section 18			
Daniel Thomas	1870	160	Apr. 24, 1820
Section 19			
Wm. Clark	1870	160	Apr. 24, 1820
Newell Brown	1872	80	Apr. 24, 1820
Shadruck Empey	1873	72	Apr. 24, 1820
Section 22			
L. E. Harrington, Mayor	1872	160	Mar. 2, 1867
James Hoggard	1870	160	Mar. 3, 1855
Elisha Davis	1870	160	Apr. 24, 1820
Niels Nielsen	1872	160	July 2, 1862
Section 23			
L. E. Harrington, Mayor	1872	320	Mar. 2, 1867
Edward Hunter	1870	160	Mar. 3, 1853
Benjamin Brown	1870	160	Apr. 24, 1820
Section 24			
L. E. Harrington	1872	160	Mar. 2, 1867
Stephen Mott	1870	160	Mar. 3, 1855
Edward Robinson	1874	160	May 20, 1862
Section 25			
Jens J. Muhrman	1871	160	Apr. 24, 1820
John Wrigley	1870	160	Apr. 24, 1820
James Gardner	1870	160	Apr. 24, 1820
Section 26			
James Chipman	1870	160	Apr. 24, 1820
John S. Eldredge	1871	160	Mar. 3, 1855
Henry S. Buckwalter	1870	160	Apr. 24, 1820
Section 27			
Edward B. Lee	1872	160	July 2, 1862
Hans Christian	1871	160	Mar. 3, 1855

It is clear that the most popular method of securing title to lands was by means of the provisions of the Homestead Act. This Act, however, imposed considerable inconvenience upon the Mormon settlers because they already had their residence established in the village, and to qualify under the provisions of the Homestead Act, necessitated their establishing temporary residence upon the land. Actually, the inconvenience fell to relatively few of the potential patentees. Since, on each quarter section to be patented, there were perhaps a dozen persons claiming land, they usually selected one of their number to enter the entire 160 acres in his name. Upon the acquisition of patent to the land, this man would proceed to deed to the several owners title to their land. The individuals would in turn pay him a fee—frequently five dollars—to compensate him for the expense to which he had been put, and for the fact that he had spent his homestead right.

As a matter of fact, this practice of getting title to the land from the government through one of many individuals actually interested was followed whether the land was alienated under the Homestead Act, or under the Act of 1830.

There were no land laws that were suitable for convenient alienation of land by the Mormons. In reality, the most convenient method would have been for the entire area to have been patented under the provision of the Townsite Entry Act of 1867. Of course, such as it was, this was not possible under the provisions of this Act, but some similar legislation would have been necessary to have facilitated the patenting of these lands. Such legislation not being in existence, the pioneers of American Fork—as in all Utah settlements—did the most expedient thing under the circumstances.

Table III. *Number of Acres of American Fork Lands Alienated Under Various Land Laws.*

Act	*Acres*
Total	9,512
May 20, 1862—(Homestead Law)	4,880
April 24, 1820—(Sale at $1.25 an acre)	2,232
March 2, 1867—(Townsite Entry)	1,120
March 3, 1855—(Military Bounty Warrants)	800
July 2, 1862—(Agricultural College Scrip)	480

Utilization and Tenure of Land. Land in American Fork, as in most Mormon villages, falls into the following general classes from the standpoint of utilization:

1. Farm or arable land.
2. Residential lots (in the village proper).
3. Pasture land (cultivated).
4. Grazing land.
   a. Free.
   b. Restricted.

Farm Land. The farm land falls into two general classes, irrigated and unirrigated or dry-farm land. The amount of irrigated land owned by each farmer is relatively small, amounting to less than fifty acres, on the average. The modal group of all land in farms of American Fork is less than twenty-five acres. This is true for the communities of Escalante and Ephraim as well. In both of these villages, practically 25 per cent of the farms fall in this group while in American Fork the percentage is much higher, amounting to nearly 46 per cent.

The size of farm by tenure in American Fork is shown in Table IV.

Table IV. *Distribution of American Fork Farms by Various Sizes and Tenure Groups.*

Size of Farm	Total	Renters	Owners	Part Owners
Total	218	27	182	9
0- 24	100	11	85	4
25- 49	57	7	49	1
50- 74	28	5	22	1
75- 99	12	1	10	1
100-124	7	2	3	2
125-149	1		1	
150-174	1		1	
175-199	3	1	2	
200-224				
225-249				
250-over	9		9	

It is seen from Table V that in American Fork, there is a higher degree of intensification in agriculture. Whereas, Ephraim and Escalante have only a fourth of their farms in the class "under 25 acres," American Fork has over 40 per cent of its farms in this class. There are also relatively fewer farms in the larger areas, and these represent for the most part dry-farm holdings. In Ephraim, and Escalante, the larger farms represent grazing units as well as dry-farms, except that in Escalante there is practically no dry-farming.

The irrigated acreage naturally averages less than the total land in farms. In American Fork, over 50 per cent of the irrigated units are less than 25 acres, and in Ephraim more than 38 per cent fall in this class. This again represents the greater intensification of agriculture in American Fork. It is surprising to see the number of people giving their occupation as "farmer," who are surviving on small acreages of land.

This fact of small-sized unit is further emphasized by a glance at the map of American Fork city and fields. One is impressed immediately by the small size of the areas. For example, in Section 11, which lies immediately adjacent to the city on the north, there are 55 separate plots of ground, the average size of each plot

being 11.5 acres. Section 10 has 41 plots with an average size of 15.5 acres. Section 26, lying directly south of town, has 49 separately described areas of land, with an average acreage of 13 acres.

Table V. *Comparison of Size of Farm in Escalante, Ephraim and American Fork, for Irrigated and Total Land in Farms.*[1]

Size in Acres	American Fork				Ephraim				Escalante	
	All Land in Farms		Irrigated		All Land in Farms		Irrigated		All Land in Farms	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Total	202	100.0	208	100.0	208	100.0	179	100.0	124	100.0
Less than 25	104	51.5	95	45.7	50	24.0	69	38.5	31	25.0
25- 49	52	25.7	56	26.9	42	20.2	43	24.0	28	22.6
50- 74	26	12.9	26	12.5	20	9.6	33	18.4		
75- 99	11	5.4	10	4.8	20	9.6	15	8.4	18	14.5
100-124	6	3.0	6	2.9	12	5.8	6	3.3		
125-149	1	.5	0	———	5	2.4	5	2.8	13	10.5
150-174	0		3	1.4	10	4.8	3	1.7		
175-199	1	.5	3	1.4	8	3.8	1	.6	22	17.7
200-224	0		0		5	2.4	———	———	12[2]	9.7
225-249	0		0		6	2.9	1	.6		
250-499	1	.5	3	1.4	17	8.2	2	1.1		
500-999			4	2.0	9	4.3	1	.6		
1,000 and over			2	1.0	4	2.0	———	———		

[1]Data for irrigated land not available.

[2]Over 200 acres.

This relatively small size of holdings is one of the interesting phenomena of Mormon land tenure. An adequate explanation of it involves consideration of certain factors in Mormon culture. Particularly important in moulding Mormon economic institutions was the doctrine of economic equality. This asserted itself early in the Mormon group as a species of communism, and while the group was in Missouri, from 1831 to 1833, approximately, the actual practice of this doctrine was attempted, but without great success and the institution was officially abandoned. Nevertheless, the spirit of economic brotherhood was more or less preserved, and when they arrived in the Great Basin, the Mormons divided the land and irrigation water into approximately equal portions to the families.

In addition to the cultural explanation, there were other reasons why small holdings predominated in the Mormon settlements. The fact that the Mormons came in large organized bodies and literally settled the land in communities rather than by individual settlement, created almost immediately a "scarcity" in both land and water. In

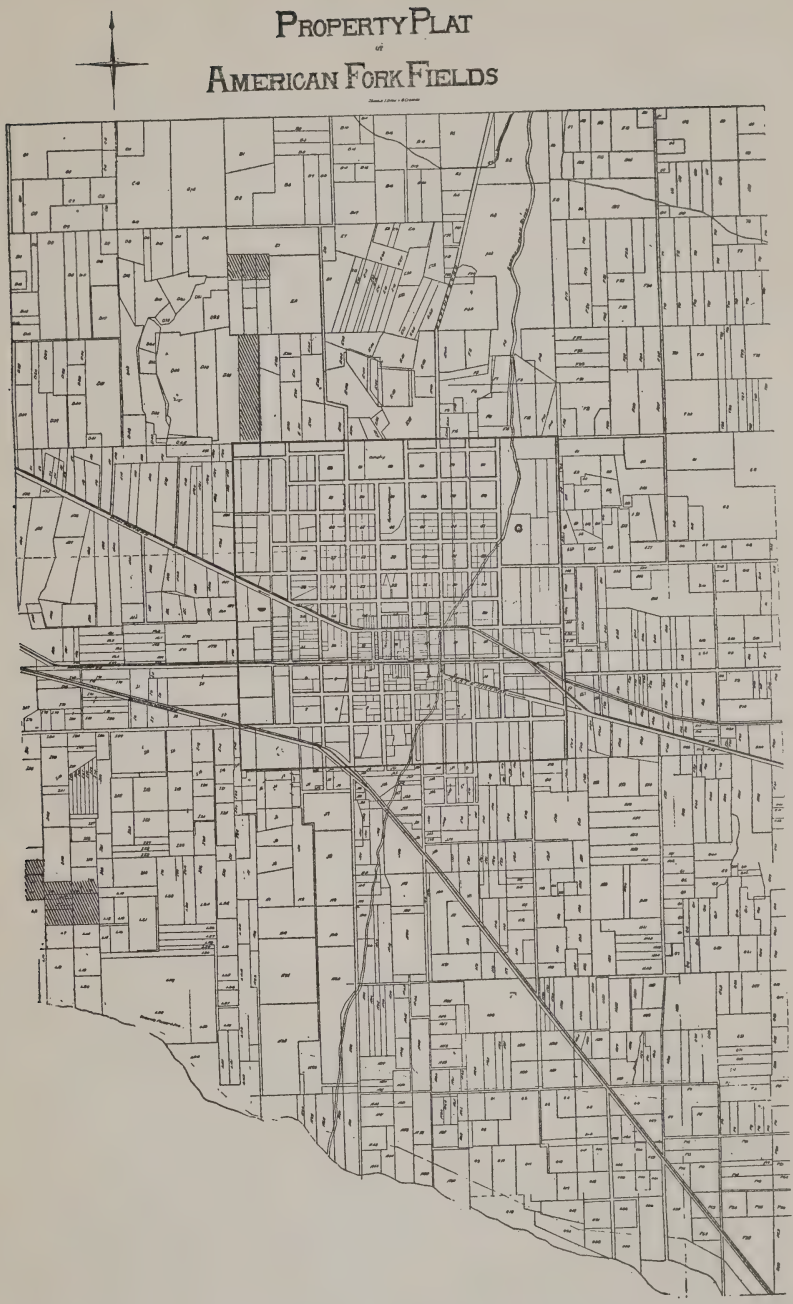

FIGURE 4. Layout of American Fork with adjacent fields. The heavy black line indicates the corporate limits of the city proper. The areas in black indicate the divided holdings of one farmer. Sixteen separate property plots are represented in these holdings. By a slow process of accretion the farmer has been able to get a farm of sufficient acreage in three different locations.

the early years of settlement, in order that each family could share in the available land and water, small holdings were essential.

Finally, the fact that the Mormons were practically on a basis of self-sufficiency in the early years made large holdings quite unnecessary for economical operation. With the change from this situation to commercial agriculture, there has been a steady increase in the size of farms in Utah.

Divided Holdings. Owing to the gradual tendency to enlarge the size of the farm unit, individuals have resorted to the expedient of purchasing areas of land wherever they could. Frequently, the newly acquired area is not adjacent to the old one, and it comes about, therefore, that a man may possess a number of pieces of ground located in different sections of the fields. An extreme case of this kind was noted in Ephraim where there was one farmer who had 12 pieces of land, no two of which were adjacent. The extreme number of different pieces found in American Fork was five, four farmers possessing this number.

Table VI. *The Extent of Divided Holdings in American Fork and Other Utah Communities.*

Number of Pieces	Number of Farmers		
	American Fork	Ephraim	Escalante
Total	208	203	128
1	137	82	104
2	42	51	19
3	18	30	4
4	7	14	1
5	4	6	
6		3	
7		2	
8		15	

The greater number of divided holdings in Ephraim probably can be accounted for on the ground that the necessity for the larger unit of operation is more acute there than it is in American Fork, where greater intensification of agriculture is possible.

Tenancy. Farm and home ownership has been a cardinal principle with the Mormon people from the beginning of their existence. Leaders of the Church frequently exhort the membership to own their farms and homes and keep them free from debt. Neither of these injunctions has been entirely obeyed, however, although the low percentage of tenancy is probably accounted for, in part, by the existence of this group urge.

Table VII. *Farms According to Tenure Groups in American Fork, Ephraim, and the State of Utah.*

Form of Tenure	American Fork		Ephraim		Utah*	
	No.	Pct.	No.	Pct.	No.	Pct.
All farms	208	100.0	208	100.0	27,159	100.0
Owners	172	82.7	178	85.6	19,046	70.1
Tenants	25	12.0	10	4.8	3,321	12.2
Part-Owners	11	5.3	20	9.6	4,562	16.8
Managers	-----	-----	-----	-----	230	.9

*Census data for 1930.

The ownership of land is more common in the more isolated communities of Ephraim and Escalante. Renting becomes more frequent as the areas of intensive cultivation are approached. American Fork lies in the sugar-beet producing area of Utah, and is close enough to the cities of Provo and Salt Lake City to justify the production of other specialized crops, particularly truck crops.

Length of Time Owners Have Owned Farms. With the urge towards ownership in the Mormon group amounting to only slightly less than a religious obligation, one is not surprised to find that farmers have owned their holdings for a rather long period of time. Fifty-four percent of the owners have been in possession of their land for more than ten years, and four of the owners have had their land for fifty years or more. One farmer has owned his land for 58 years, his possession dating from 1870.

Table VIII. *Distribution of Farmer-Owners of American Fork According to Length of Time Farm Has Been Owned.*

Years Farm Owned	Farmer-Owners in Each Class	
	Number	Percent
Total:	172	100.0
Under 5	41	23.8
6-10	36	20.9
11-15	12	7.0
16-20	26	15.1
21-25	16	9.3
26-30	14	8.2
31-35	4	2.3
36-40	10	5.8
41-45	4	2.3
46-50	2	1.2
51-55	1	.6
56-60	2	1.2
Not reporting	4	2.3

Debt on Farm. The range of indebtedness is greater for Ephraim than for American Fork, due to the fact, no doubt, that the size of

farm is greater in the former village. The maximum debt on any American Fork farm is $7,000.00, while in Ephraim there were 7 farms which carried debts exceeding $6,000.00, and one of them had over $10,000.00 against it.[2]

Table IX. *Distribution of the Size of Farm Debt on American Fork and Ephraim Farms.*

Size of Farm Debt (Dollars)	American Fork		Ephraim	
	No. farms	Pct.	No. farms	Pct.
Total	45	100.0	74	100.0
Under 1000	14	31.5	23	31.1
1001-2000	12	26.7	21	28.4
2001-3000	5	11.1	11	14.9
3001-4000	4	8.9	9	12.2
4001-5000	7	15.6	2	2.7
5001-6000	2	4.4	1	1.3
6001-7000	1	2.2	5	6.8
7001-8000			0	
8001-9000			0	
9001-10,000			1	1.3
Over 10,000			1	1.3
Reporting debt amt. not given	6			
Total Farms Owned	172		178	
Average debt	$2522		$2284	
Percent of owned farms reporting debt	29.6		41.6	

A larger number and percentage of the Ephraim farms are encumbered than is the case for American Fork, but the average debt is slightly lower. However, the difference is small.

Distance of Farm from Home. One of the most interesting features of Mormon land tenure is the fact that the farmer resides in the village and travels to and from his land in the outlying area. Even in American Fork where the degree of urbanization is greater than in Ephraim, a large percentage of the farmers live in town. There is a marked difference between American Fork on the one hand and Ephraim and Escalante on the other. In the latter communities there are practically no farmers living on their farms, whereas, in American Fork 82, or nearly forty per cent of the 208 farm operators, have their residence on the farms. As already indicated, however, the farms are small, and for this reason, residence on the farms does not really mean a very great degree of dispersion.

Nevertheless, living on the farm in American Fork may not mean all that the phrase suggests. For instance, of the 51 farm dwellers,

[2]The fact that the Ephraim data was secured in 1925, and the American Fork data in 1928, should be noted.

27 have divided holdings, and must travel some distance to part of their "farm."

Table X. *The Number of Pieces of Farm Land of American Fork and Ephraim Which Lie at Given Distances from the Farm Home.*

Distance from	American Fork		Ephraim	
Home in Miles	On Farm	In Town	On Farm	In Town
Total	51	178	133	161
1-1.9	27	46	19	20
2-2.9	15	65	35	45
3-3.9	6	34	29	47
4-4.9	2	15	20	22
5-5.9		3	8	7
6-6.9			3	6
7-7.9			8	5
8-8.9	1	15	2	5
9-9.9			9	4

It is plain that the American Fork farmer spends less time travelling between his farm and his home than does the farmer in Ephraim. (This is likewise true of Escalante, and is probably due to the location of the communities.) In Ephraim, the farming area tributary to the community is more widely scattered. American Fork is three miles from Lehi on the north, and four miles from Pleasant Grove on the south. If a man's farm should lie between American Fork and one or the other of these two communities, he could adjust his place of residence so that he would not need to travel more than a mile and a half in the one case and two miles in the other. If the distance from American Fork to his farm were greater than 2 miles to the south, it would pay him to move his residence to Pleasant Grove.

In the sparsely settled sections of the State, however, this alternative is not open to the farmer; and, consequently, if he maintains his residence in town, it may be necessary for him to travel greater distances than would be the case in the more populous sections.

Some farmers, even in American Fork, solve this problem in part, by maintaining temporary residence on the farm in the summer time, and moving to town for the winter.

Only farmers in American Fork who possess dry-farm or grazing areas travel more than four or five miles from their home in town.

The Residence Lots. Tentative ownership of the residence lots within the area set aside for the village site proper was acquired in different ways. Frequently, the lots were numbered and the distribution determined by drawing "lots." Sometimes, the lots were arbitrarily assigned by the Bishop, concession being made to the individual preferences as far as possible.

It was intended that each family should have a lot in town sufficient in size to allow for a barnyard, a family garden and fruit trees, in addition to the residence proper. In American Fork, the

original lots were 1¼ acres. This was also true in the case of Escalante and Ephraim.

The City of Zion. The pattern for the lay-out of Mormon settlements came into existence in 1833 when the Mormons were attempting to settle in Missouri. At that time, it was the intention of the group to found the City of Zion, which was part of their program of preparing for the coming of the Savior. Joseph Smith, their leader and prophet, was maintaining his headquarters in Kirtland, Ohio, from which place he sent directions for the settlement in Missouri. As the time came for actually laying out the proposed sacred city, Joseph Smith and his associates sent complete instructions and specifications for the new community. These specifications called for ten-acre blocks, with streets 8 perches wide, and 20 half-acre lots to the block. It was further provided that no more than one house should be built on a lot. The lay-out covered one square mile, and was intended to accommodate 15,000 to 20,000 people.[3]

Salt Lake City, the first Mormon village, was laid out after the plan of the City of Zion, with slight variations. So have practically all Mormon settlements been patterned after this original design. All represent some modifications, however. For instance, the original design provided for a center tier of blocks which were to be fifty per cent longer than the rest. That is, instead of being 40 by 40 rods, this center tier was to be 40 by 60 rods in area. These blocks were intended for public buildings. Most of the settlements of Utah did not allow for this feature, although it is interesting to find it in the lay-out of Ephraim.

In the case of American Fork, the blocks are approximately 10 acres, and the original lots were 1¼ acres in size. There is considerable irregularity in the size of the blocks, however, as is revealed by actual measurement. Some blocks contain slightly more, some slightly less than ten acres.

The blocks in Escalante are only 5 acres, and each block is divided into four lots, making each one 1¼ acres in area.

The streets in American Fork are also irregular as to width. Center street, Main, and 1st North streets are all 6 rods in width. First East, Third East, Fourth East, are all five rods in width, while Second East, Fifth East, and First, Second, and Third West are but four rods wide.

It will be seen from the map reproduced herewith (Figure 5), that the lots at present do not correspond to the original ones in all cases. Oftentimes, there are more than 8 lots to a block. As the community has become urbanized, an acre or more of land has been considered more than enough for a lot, and subdivision has taken place. Inheritance has probably played an important role here also. As children have married, they have been given "building lots" on the parental allotment.

It is interesting to note, however, that the relatively large lots

[3]A more complete description of the City of Zion, including a reproduction from a photograph of the original map, will be found in *B. Y. U. Studies*, No. 3, 1930.

FIGURE 5. The lay-out of American Fork, Utah. The blocks are approximately ten acres, designed originally to contain eight lots of 1¼ acres each. The streets are variable in width, the widest being 6 rods, part of the remainder 5, and the balance 4 rods.

have been found quite desirable with the rapid development of the poultry industry which has taken place in American Fork. Such an area as the original lots provide is often adequate for a family to establish a poultry enterprise which is sufficient to give them a livelihood.

Homes by Tenure. Of the 661 families reporting in the survey, 127 or nearly 20 per cent rent their homes. Fifty-six of the renters of homes are classified as laborers. There are 22 who call themselves "farmers," while an additional 3 are sheepmen and 4 others are poultrymen. Twenty-seven of the 127 are engaged in merchandising, giving as their occupations clerks, store managers, managers of service stations, cafes, drug stores, and so on. The rest are school teachers, an editor of the paper, a nurse, widows and miscellaneous.

It might appear strange to have farmers as home renters, but this is readily seen to be logical when it is remembered that in the Mormon village, farm homes are usually separate from the farm land.

More than 80 per cent of the renters are under 40 years of age, indicating that most of them represent families which have not achieved ownership, but may do so.

Table XI. *The Tenure of American Fork Homes.*

Tenure of Homes	Number	Per cent
Total	661	100.0
Owned	528	79.9
Rented	127	19.2
Not reported	6	.9

Debt on Homes. Of the eighty per cent who own their homes, 417 families report no incumbrances on the home. There are 111 families reporting some indebtedness on the home. The size of the debt ranges from $100 to $3,000.

Table XII. *The Indebtedness On Homes Owned in American Fork.*

Amount of Indebtedness	Number of Homes	Per cent
Total	528	100.0
Debt-free	417	79.0
Less than $250	15	2.8
$251-500	28	5.3
501-750	9	1.7
751-1000	15	2.8
1001-1250	9	1.7
1251-1500	9	1.7
1501-1750	2	.4
1751-2000	5	.9
2001-2250	1	.2
2251-2500	2	.4
Over $2500	3	.6
Amount Uncertain	13	2.5

The Pasture Land. Along the river bottoms in practically every Mormon settlement are lands which are either naturally "wet," or have been made so by the seepage of water from irrigated land on higher elevations. Such land is used for pasture or for production of "wild hay." The development of property rights in the natural meadow land is one of the most interesting features of Mormon land practice.[4]

In the earlier period of settlement, the pasture lands were often held in common, but as the population increased, and the meadows became relatively more "scarce," competition for the use of these lands became very keen, and they finally evolved as private property.

The cow-herder in earlier days would come through the village, according to old settlers of American Fork, and take the cows to the pasture, and return them at night. For this service, he was paid by the owners of the cows so much per head per week. In the writer's native village, cowherds would take cows into the foothills and herd them all day for 10 cents a head a week.

All the fields were used as common pasture after a set date in the fall. This date corresponded with the time when all crops could be gathered, and the exact date was usually announced on Sunday in meeting by the Bishop. This is a practice which is parallel in form to that on the English manor, known to them as Lammas Day. There is no implication, of course, that the Mormon settlers borrowed this idea. On the other hand, it was most likely a case of independent invention. It was simply the most sensible and expedient thing to do. After the date, everyone would leave his bars down, or his gate open, and turn his cattle and horses loose to go where they wished, in his own farm, or that of the neighbor's farm adjoining his.

The Grazing Lands. Most of the land of the Great Basin is unfit for agriculture. The available land for tillage is limited, for the most part to the valley floors, and amounts to less than five per cent of the total land area of the State. The rest of the area is mountain and desert country. It is inevitable, therefore, that livestock grazing should be an important industry.

In the case of the grazing lands, we have another interesting example of the evolution of property rights. So long as there was plenty and to spare, these lands were essentially "free" economic goods. The settler turned as many cattle, sheep, or horses on the mountain range as he desired, and at the date which suited his individual convenience. Until the range became overstocked, this practice was a perfectly logical one. But with the development of the livestock industry, the range became overgrazed, and in 1905, the National Forests were created. This meant that the summer range lands were no longer to be regarded as "free" goods, but that they were now for "restricted" use. This represents what might be called the second stage in the evolution of property in these lands. It is unlikely that

[4]The most interesting case which has come to the writer's attention was in Ephraim. It is described on page 10 of "The Utah Farm Village of Ephraim," *B. Y. U. Studies,* No. 2 (1928).

the process will go any further towards a condition of private property, because there are good reasons why they should be kept under public supervision.

There were portions of this land, however, which were alienated by private individuals under provision of the Grazing Homestead Act. In fact, all land which could be appropriated successfully by individuals has fallen into private hands. This does not apply, to any great extent, to lands within the areas of the National Forests.

But there are still vast areas of land which are being used by Mormon settlers as "free." The public domain at present amounts to nearly 200,000,000 acres, and Utah has about 25,000,000 acres within its boundaries. This land has not undergone any change in its economic status as property since the settlers first came. It is safe to predict, nevertheless, that it will come under some form of restricted use in the near future.

The Mormon land system is unique. It has not received the attention of students which it deserves. We do not know what changes are taking place in it, and the desirable and undesirable features of it. Its study will fully repay the scholar whether he be working in the field of pure theory, or whether he be intent upon problem solving.

PART V

POPULATION

Since the beginning of its history American Fork has enjoyed a steady increase in its population. Even in the decade 1920 to 1930, when so many rural communities were experiencing a decline in numbers, American Fork increased from 3,290 to 3,641. This steady growth is due to its favorable geographic location, and to the rise of the poultry industry. This industry has had an unusual vogue in American Fork, due to the desirable situation of the place, and the impetus given the industry by one or two outstanding enthusiasts for the enterprise who have had unusual economic success at it. Factors in the physical setting which are favorable are the proximity to Salt Lake City, and the excellent transportation facilities. This influence may be somewhat secondary in importance, however, as compared with the influence of one or two outstanding leaders who made conspicuous success in the industry. It is a good place to comment on the fact, too, that the Mormon village plan is amenable to the development of the poultry industry, since each dweller in the town has room on his city lot for a coop or two.

Every community which experiences steady population growth does so because its economic opportunities increase also. It was shown in the case of Ephraim and the Sanpete County towns[1] that they had reached the maximum population of which they were capable under

[1]See *B. Y. U. Studies*, No. 2.

existing economic conditions. Only with some new economic release, which might come through the establishment of a new industry, or by a return to a larger measure of self-sufficiency, can they expect population increase to continue.

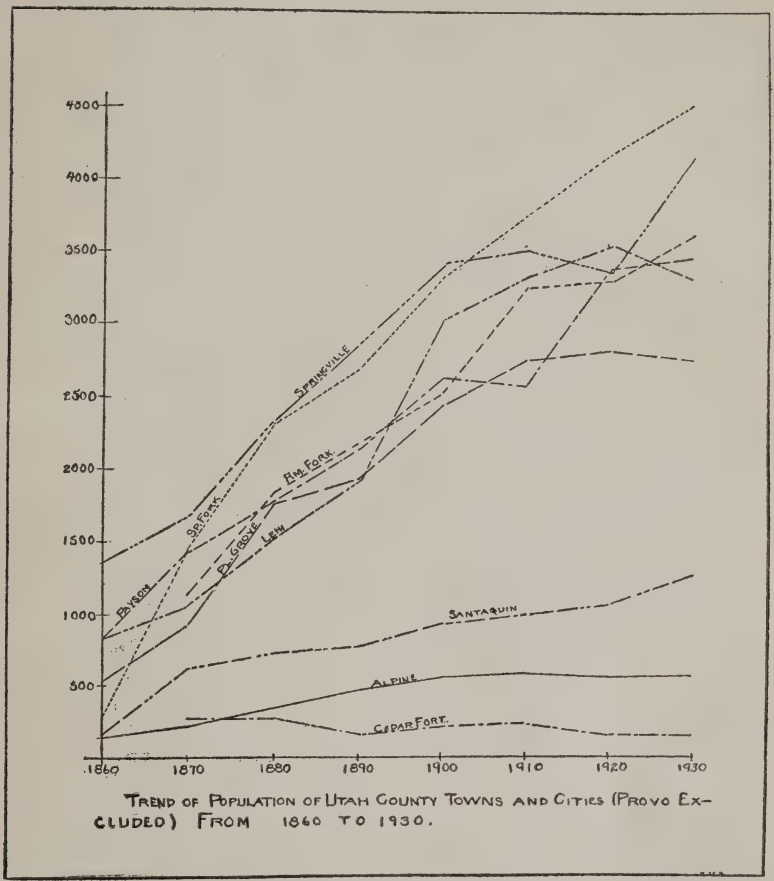

FIGURE 6. Trend of Population of Utah County Towns. In most cases the graphs indicate a slowing down in the rate of growth.

The graphs of population growth in Utah county towns indicate that they have been somewhat later in reaching the limits set by their economic resources. This particularly is true of certain ones, and not so true of others. American Fork, Spanish Fork, Springville, and to a lesser extent, Payson and Santaquin, have recorded continued growth. The explanation is rather plain to see. Spanish Fork is the dominant commercial center of south Utah county, by virtue of its geographic location. Springville was the beneficiary in part of the establishment, in 1923, of the Columbia Steel Plant at Ironton, just two miles out of the town. Spanish Fork, Payson and Santaquin are still experiencing the new release they received when the Strawberry Reclamation Project (Federal) was constructed.

Table XIII. *Population of American Fork and Other Utah County Towns by Decades Since* 1860.*

Town	Population							
	1860	1870	1880	1890	1900	1910	1920	1930
American Fork		1115	1825	1942	2732	3220	3290	3641
Alpine	135	208	319	466	520	585	529	548
Cedar Fort		272	272	176	218	236	178	177
Lehi	831	1058	1538	1907	3033	3344	3531	3275
Payson	830	1436	1788	2135	2636	2576	3377	3458
Pleasant Grove	526	930	1775	1926	2460	2752	2833	2777
Provo	2501	2384	3432	5159	6185	8925	10,303	14,753
Santaquin	158	602	715	769	929	991	1052	1249
Spanish Fork	769	1450	2304	2686	3327	3751	4172	4508
Springville	1357	1661	2312	2849	3422	3506	3348	4135

*Source: *U. S. Census.*

Age and Sex Distribution. The population of American Fork compares irregularly with that of Ephraim. It has a definitely larger percentage of its population in the lower age groups under fifteen years. From fifteen to thirty-four, inclusive, Ephraim has a slightly larger percentage, but American Fork excels in the group thirty-five to forty-four. The Ephraim percentage is greater again in the groups forty-five to fifty-four and fifty-five to sixty-four, with American Fork showing rather marked superiority in the group sixty-five and over. The comparison is not to be relied upon wholly, because of the relatively small samples in each case, and because they are not for the same year. Moreover, the differences are so slight in most cases as to make them almost negligible. However, one cannot but seek for explanations of what differences do exist. In the present instance, these differences might be due to a difference in population cycles. A "cycle" might be thought of somewhat as follows:

In the first settlement of a community, the settlers are usually young married people of somewhat the same age. Their children are in series of about the same ages. As long as the community is prospering and expanding, the young people marry and settle down in the old town, instead of migrating. However, when the community arrives at the "saturation point," the young people have to migrate, and this leaves the community "short" in the middle age group and the young children group. It also means that the percentage of very old people becomes greater. The situation in Ephraim is just in the stage where there are few child-bearers in the population due to the heavy migration of potential parents. American Fork, on the other hand, has been experiencing better times, that is, better economic opportunities for the young people, and consequently it has been possible for a larger proportion of them to remain at home. They are the fathers and mothers of the extra numbers in the group children under fifteen years of age, and they are represented in the larger percentage found in the group from thirty-five to forty-four years of age. Ten years hence the composition of the two populations will doubtless have changed materially.

Table XIV. *Distribution According to Age and Sex Groups of American Fork Population,* 1928.

Age Groups	American Fork						Ephraim	Utah
	Total		Male		Female		Pct.	Pct.
	No.	Pct.	No.	Pct.	No.	Pct.	(1925)	(1930)
Total	3091	100.0	1589	100.0	1502	100.0	100.0	100.0
Under 5	373	12.1	180	11.3	193	12.9	11.5	11.7
5-9	381	12.3	201	12.7	180	12.0	24.1	12.3
10-14	403	13.0	217	13.7	186	12.4		11.7
15-19	362	11.7	181	11.4	181	12.0	20.3	10.4
20-24	232	7.5	122	7.7	110	7.3		9.1
25-29	185	6.0	93	5.8	92	6.1	12.2	7.4
30-34	171	5.5	83	5.2	88	5.9		6.7
35-44	334	10.8	157	9.9	177	11.8	9.8	12.0
45-54	248	8.0	130	8.2	118	7.9	9.8	8.9
55-64	180	5.9	91	5.7	89	5.9	6.1	5.5
65 and over	222	7.2	134	4.7	88	5.8	6.2	4.4

This becomes especially apparent when one notes the ages of the family heads of the two communities, and sees the much larger percentages of those in Ephraim in the younger groups. There is also a much larger proportion of the family heads in Ephraim who are over forty-five, while American Fork predominates in the group from twenty-five to forty-five. The table also indicates that the younger men of Ephraim are forced into other than farm pursuits, while the opposite is true in American Fork, again reflecting the continuing opportunities in agriculture in American Fork, which is chiefly attributable to the poultry industry.

The males predominate here, as they do in Ephraim, but not to the same degree. There are 105.7 males to each 100 females in American Fork, whereas in Ephraim the ratio is 108.8 to 100. The ratio for Utah is 106.8 to 100.

Table XV. *Age Groupings, Farm and Non-Farm, of Heads of Families in American Fork and Ephraim.*

Age	American Fork						Ephraim		
	Total		Farm		Non-Farm		Farm (198)	Non-Farm (283)	Total (481)
	No.	Pct.	No.	Pct.	No.	Pct.	Pct.	Pct.	Pct.
Total	564	100.0	285	100.0	279	100.0	100.0	100.0	100.0
Under 25	20	3.5	7	2.5	13	4.7	3.5	5.6	4.8
25-34	117	20.7	49	17.2	68	24.4	17.1	21.2	19.4
35-44	149	26.4	63	22.1	86	30.8	18.7	18.7	18.7
45-54	120	21.3	61	21.4	59	21.1	29.8	15.2	21.2
55-64	86	15.3	53	18.6	33	11.8	17.1	16.2	17.3
65 and over	72	12.8	52	18.2	20	7.2	10.6	22.6	17.7
Not reporting							1.5	0.5	0.8

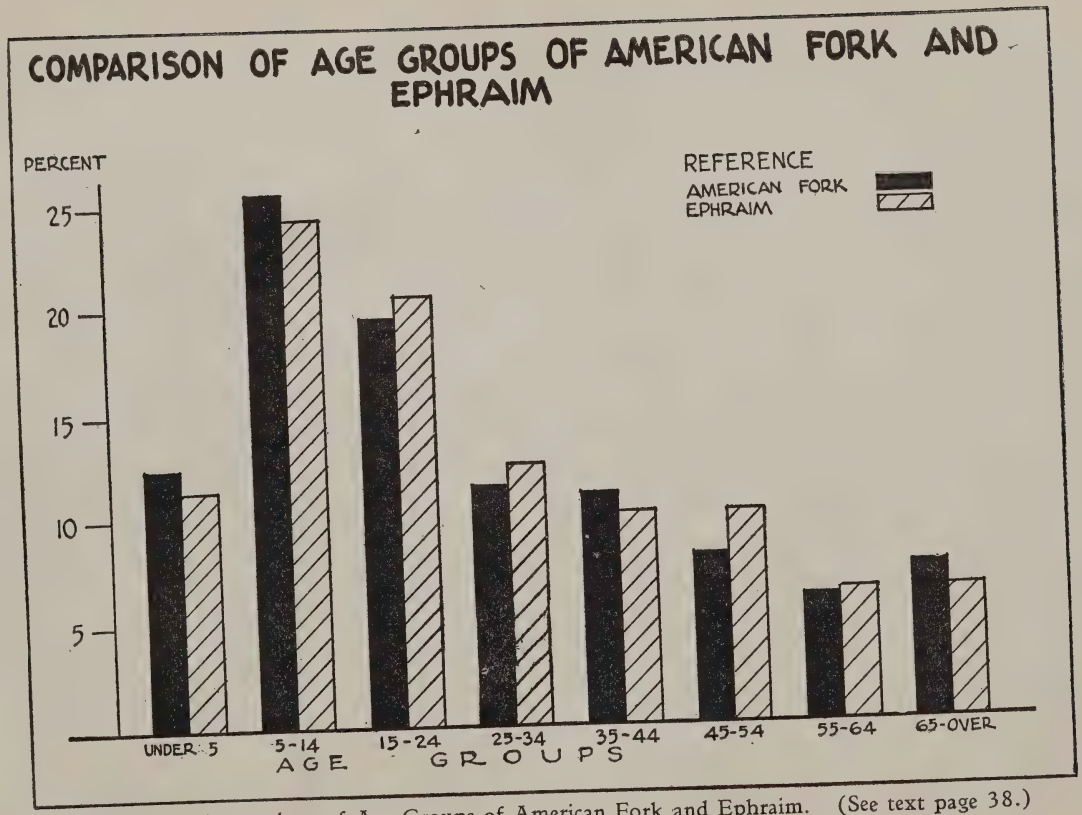

Figure 7. Comparison of Age Groups of American Fork and Ephraim. (See text page 38.)

Place of Birth. While more than half of the population of American Fork were born there, the percentage is considerably less than that for Ephraim and Escalante, each of which recorded seventy percent locally born. This reflects the influence of urbanization which characterizes American Fork, and the more highly perfected transportation facilities, as well as its location in a more populous region where interchange of population among towns and general mobility is more likely to be greater. Ephraim had a larger portion of foreign-born, owing to the dominantly ethnic characteristic of the community. It was settled largely by immigrants from Denmark and the Scandinavian peninsula. Naturally, the larger group of locally born is represented in the "under twenty-one" group.

Table XVI. *Distribution of the Population of American Fork According to Sex and Place of Birth, with Comparative Total Percentages for Ephraim and Escalante.*

Place of Birth	American Fork						Ephraim	Escalante
	Total		Male		Female			
	No.	Pct.	Under 21	21 & Over	Under 21	21 & Over	Total Pct.	Total Pct.
Total	3048	100.0	808	738	767	735	100.0	
Locally born	1754	57.6	571	358	516	309	69.6	70.0
Other Utah towns	887	29.1	189	234	205	259	18.2	
Other States	219	7.1	43	64	42	70	2.2	
Foreign born	185	6.1	4	81	4	96	10.0	
Unknown	3	.1	1	1		1		

Table XVII. *Occupational Distribution by Sex of the Gainfully Employed in American Fork.*

Occupation	Total		Male		Female	
	No.	Pct.	No.	Pct.	No.	Pct.
Total	808	100.0	741	100.0	67	100.0
Agriculture	332	41.1	328	44.3	4	6.0
Mineral Extraction	46	5.7	46	6.2		
Manufacturing	97	12.0	88	11.9	9	13.4
Transportation	49	6.1	45	6.0	4	6.0
Trade	94	11.7	87	11.7	7	10.5
Public Service	14	1.7	12	1.6	2	3.0
Professional Service	44	5.5	23	3.1	21	31.3
Personal Service	28	3.5	16	2.2	12	17.9
Clerical	18	2.2	10	1.4	8	11.9
Unclassified Common Labor	86	10.6	86	11.6		

Occupation. The occupational characteristics of the Mormon village population constitute one of the most prominent marks of distinction when compared with other "agricultural" villages in the

United States. Even in a town as large as American Fork, over forty percent of those gainfully employed are engaged in agriculture. In Ephraim, which possessed one thousand fewer people, the percentage was 59.5, while in Escalante, containing in all only 1,000 people, the percentage was 77.8. The larger the community the more highly differentiated is the population.

Marital Condition. A larger proportion of the "eligibles" of American Fork are married than is the case for Ephraim. Of the males, 62.5 and of the females, 62.8 percent are married. The comparable percentages for Ephraim are 59.1 and 60.6. The rate of marriage for females is consistently greater than males for the age groups under forty-five years, and from then on the males show a larger percent of their number in the married state. In both Ephraim and American Fork, the widows outnumber the widowers by more than two to one. This doubtless reflects the element of choice which still rests nominally with the male, who will usually choose a second mate, whereas the woman may not get another chance.

Table XVIII. *Marital Condition of the Population of American Fork.*

Age	Total			Married		Single		Widowed		Divorced	
Groups	Total	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem
All Ages	1871	939	932	587	585	317	263	31	77	4	7
15-19	362	182	180	2	11	180	169		0		
20-24	223	118	105	29	43	89	61		1		
25-29	186	95	91	64	71	28	18	1	1	2	1
30-34	167	83	84	72	82	9	2	1		1	
35-39	168	81	87	76	77	4	5	1	3		2
40-44	167	76	91	74	80	2	4		6		1
45-49	115	57	58	54	53	1	1	2	4		
50-54	131	71	60	62	54	2	2	6	4	1	
55-59	87	38	49	37	34			1	14		1
60-64	91	51	40	46	32	2		3	8		
65 &over	174	87	87	71	48		1	16	36		2
Percent				62.5	62.8	33.7	28.2	3.3	8.3	.4	.7
Pct. for Ephraim				59.1	60.6	36.7	28.0	3.8	11.2	.3	.1

The greater ratio of males to females in Ephraim is reflected in the greater marriage rate among the females of that city, as compared with the situation in American Fork, where the sexes are more evenly divided, and the marriage rate among them is likewise more nearly equal.

Size of Family. The size of family in American Fork averages relatively high. The number of children born to the 660 families is five, on the average. While the modal group in the frequency distribution is two, the higher groups contain high precentages. For instance, there are more children represented in the ten-children families than in any other group. This is slightly larger than the average of 4.8 for Ephraim, and less than the average of 5.6 for Escalante.

The differential fecundity as found among non-farm and farm

classes in the community shows slight superiority in favor of the latter. However, the "farm" group contains all those engaged in agricultural pursuits including sheepmen, poultrymen, and other specialized groups. If we take the general farming group of 169 families, we find the average to be 5.4 children born, which compares favorably with the average in Escalante, which is predominantly agricultural. It should be recalled, in making these comparisons, that the age factor has not been eliminated. In general, the parents of farm families are older, and consequently their families are more nearly "filled" than is the case with the non-farm group. In a subsequent portion of this bulletin, "filled" families of the various occupational groups are compared, and some slight superiority is shown in favor of the agricultural group. The occupational factor, it seems, is important in affecting fecundity in a population, but there are other factors involved. Besides, the occupations themselves are selective of certain characteristics.[1]

Table XIX. *Number of Children Born Per Family, in Farm and Non-Farm Groups of American Fork, Compared with Totals for Ephraim and Escalante.*

No. of	Total		Farm		Non-Farm		Ephraim Total		Escalante Total	
Children	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Total	660	100.0	278	100.0	382	100.0	475	100.0	179	100.0
0	31	4.7	12	4.3	19	5.0	45	9.5	5	2.8
1	52	7.9	20	7.2	32	8.4	39	8.2	10	5.6
2	88	13.3	32	11.5	56	14.7	55	11.5	21	11.7
3	73	11.1	29	10.4	44	11.5	55	11.5	26	14.5
4	71	10.7	28	10.1	43	11.3	56	11.8	18	10.0
5	70	10.6	27	9.7	43	11.3	51	10.7	12	6.7
6	59	8.9	29	10.4	30	7.8	37	7.8	25	14.0
7	50	7.6	20	7.2	30	7.8	29	6.1	14	7.8
8	44	6.7	23	8.3	21	5.5	41	8.6	15	8.4
9	30	4.5	15	5.4	15	3.9	32	6.7	10	5.6
10	37	5.6	22	7.9	15	3.9	17	3.6	13	7.3
11	20	3.0	8	2.9	12	3.1	9	1.9	3	1.7
12	15	2.3	5	1.8	10	2.6	3	.6	3	1.7
Over 12	9	1.4	3	1.1	6	1.6	7	1.5	4	2.2
Not Reported	11	1.7	5	1.8	6	1.6				

The number of children living at home for 486 non-farm households is 2.3, and for the 166 farm families, 3.2.

Vital Statistics. In the ten-year period, 1916 to 1925, there were in American Fork 1,016 births and 340 deaths. The total natural increase was 676 people, or at the rate of 14.5 persons per thousand of the population each year. But in this same period of time, there was an actual increase in the population of the city of only 203, from 3,262 to 3,465. These population figures are estimated on the basis of the changes which took place from one decennial census to another.

[1]See Part VI and Part VII.

Therefore, there were 473 of the 676 who were compelled to move away. This exodus is typical of the migration problem of the Mormon village. Utah, generally speaking, is in the exporting business so far as its surplus population is concerned. In other words, she is no longer able to care for her natural increase, to say nothing of the people who immigrate from other states and countries.[2]

Table XX. *Birth and Death Rates of American Fork Compared With Those of Ephraim.*

Years	Births			Deaths		
	American Fork		Ephraim	American Fork		Ephraim
	No.	Per 1,000	Per 1,000	No.	Per 1,000	Per 1,000
Average	101.6	36.8	33.2	34.0	12.3	14.5
1914			35.3			11.8
1915			34.0			10.0
1916	91	32.8	32.7	31	11.2	11.3
1917	108	38.9	36.1	26	9.4	15.2
1918	92	33.2	37.9	30	10.8	20.0
1919	92	33.3	33.1	36	13.0	16.5
1920	107	38.7	39.6	38	14.5	17.4
1921	133	48.2	33.8	35	12.7	15.6
1922	101	36.6	29.5	35	12.7	14.1
1923	89	32.3	26.4	32	11.6	13.0
1924	112	40.8	27.0	31	11.3	
1925	91	33.1		36	13.1	

Table XXI. *Infant Mortality Rates in American Fork and Ephraim.*

Years	American Fork		Ephraim*	
	No.	Deaths per 1,000 Births	No.	Deaths per 1,000 Births
Average	5.1	50.2	5.4	71.5
1914			5	61.7
1915			3	38.4
1916	8	87.9	3	40.0
1917	2	18.5	8	96.4
1918	4	43.5	10	115.0
1919	6	65.2	3	39.5
1920	7	65.4	4	44.0
1921	6	45.1	4	52.6
1922	4	39.6	6	93.7
1923	3	33.7	8	133.9
1924	3	26.8		
1925	8	87.9		

*From *B. Y. U. Studies*, No. 2.

[2]This stubborn fact has compelled modification of the missionary policy of the Church. Whereas, the earlier urge was to "gather to Zion," at the present time emphasis is being placed upon building up the missions.

American Fork has a much more favorable record for infant mortality. Ephraim apparently suffered much more seriously from the "flu" epidemic of 1918, the reason for which it is difficult to assign, unless it lies in the factor of medical care.

Table XXII. *Total Deaths by Age Groups in American Fork,* 1916-1925.

Age Groups	Deaths	
	No.	Pct.
Total	330	100.0
Under 1	51	15.4
1-6	28	8.5
7-12	9	2.7
13-18	11	3.3
19-24	19	5.4
25-34	22	6.7
35-44	21	6.4
45-54	23	7.0
55-64	27	8.2
65 and over	120	36.4

Table XXIII. *Causes of Death in American Fork,* 1916-1925, *Inclusive.*

Cause of Death	Number
Total	340
Pneumonia	47
Heart Disease	42
Influenza	23
Acute Nephritis and Brights Disease	20
Accidents	20
Cancer	18
Tuberculosis	4
All Other	156

As in the case of Ephraim and Escalante, the leading cause of death is pneumonia. When this cause is combined with influenza, it assumes overwhelming dominance among the diseases causing death. Heart disease ranks next in all three communities, with cancer running high among the other causes. This, of course, corresponds with the situation in the nation at large.

Size of House. American Fork homes range in size from one room to thirteen rooms. The average is 4.6 rooms per house. This is larger than the average for Escalante, but slightly less than the average for Ephraim. A smaller proportion of the homes, however, are three rooms or less, in American Fork, than is the case in either Escalante or Ephraim. In Escalante, 41 percent of the homes were two and three-room houses, and in Ephraim 26 percent of the homes were in this class.

In each village, it is the group listing their occupation as "laborer,"

which occupies the smaller homes. In an earlier publication[8] the author commented on this group in the Mormon village population as being comparable in a sense to the cotter group on the medieval manor. The "laborer" is, in the Mormon village, usually a young man, son of a farmer most likely, who is on the way to finding his permanent niche in the economic life of the community. He may become a farmer, through inheritance probably, or he may remain permanently a laborer, or find some other occupation open to him in the village.

His family is usually small. He may or may not own his home and garden lot. His income is more or less uncertain, on account of the seasonal nature of employment in an agricultural community. Consequently, his level of living is "lower" than that for the groups designated as "farmers" or "others." The "others" class includes the professional and business people, and therefore represents a class which has a more definite economic status.

American Fork has 4.4 persons per household, which means that on the average there is slightly more than one room per person, compared with .9 of a room per person in Escalante and about 1.2 rooms per person in Ephraim, where the household averages 5.0 rooms and 4.2 persons.

Utah villages generally cannot expect a continuation of population growth for many more years. The land area suitable for farming is limited and practically all taken up. More important also is the fact that the water supply is limited. Without irrigation, most of the lands in the Great Basin are worthless for cultivation. There are limited areas where dry-farming is practiced, but at best, this is a hazardous enterprise. Possible releases can come in the following ways:

1. Return to a larger degree of self-sufficing economy. This means resort to more hand labor, both on the farm and in the home, and is not likely to take place except under the urgent pressure of necessity.
2. By the decentralization of industry from the urban sections, and the establishment of more manufacturing enterprises in the village. This has taken place to some extent in Utah through the establishment of beet sugar factories and canning factories.
3. By resort to a more intensive type of farming, whereby a larger amount of human labor can be utilized. This is a policy which will have to reckon with the trend towards the utilization of more machinery and other labor-saving methods.
4. Through the institution of handicraft products in the villages. This is a program which promises much in the long run, although the immediate prospect of getting it under way is none too bright. The depression, however, is tending to stimulate handicraft, and it may be the means of giving the movement considerable impetus. The making of articles artistic in design, and showing high quality of workmanship in construction, will always command a price from tourists, par-

[8] *B. Y. U. Studies,* No. 2.

ticularly if the articles bear some relation to the environment in which they are produced.

PART VI

EDUCATION AND SIZE OF FAMILY[1]

While a number of studies have been made of selected groups such as college alumni, very little has been done to show the relation between education and fecundity in the population at large. The well-known studies made of Wellesly, Vassar, and Mt. Holyoke Colleges for women; of Harvard and Yale Universities for men; of Stanford and other co-educational universities, point unmistakably to the disproportionately low fecundity of college graduates, both men and women. The inference is that education is the dominant if not the sole cause. A number of studies made rather recently are tending to shift the emphasis. Banker[2] in his review of the data submitted by Holmes[3] on the size of college families, concludes that "it seems evident that if there is an educative factor involved in the problem of a declining birth-rate it is not operative through the higher institution, but is chiefly effective in or below the high school," and a little further on in the same article says:

"It is the writer's opinion that education, and especially formal college education, has little or nothing to do with the declining birth-rate, that the correlations between education and fecundity which have been so greatly exploited are spurious or rather that they are simply mutual correlations with a *tertium quid* and are not directly related."

Banker also quotes from Brown and Greenwood in their study of "The Fertility of the English Middle Classes" the following conclusion of these writers:

"Paying attention to the errors of sampling, there is no difference between the average size of the family of a non-college mother and that of a college mother, which cannot be explained by difference of age at marriage and duration of a marriage" and "the alleged prejudicial effects of higher education *per se* upon the capacity or inclination of women to bear children do not exist."

Woods[4] in a study of Harvard graduates finds, on the other hand, that there is a correlation between high achievement and big families. Only one-fourth as large a proportion of the celibates were represented in "Who's Who" as there were for those who had four or more children. Here again, however, the data comes from a very select group.

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[1]Mr. N. I. Butt, of the B. Y. U. Library staff, assisted in the preparation of this chapter which constituted the basis of an article in *Journal of Heredity*, July, 1928.

[2]Howard J. Banker, "Education and Fecundity," *Journal of Heredity*, V. 16, pp. 57-59.

[3]S. J. Holmes, "The Size of College Families," *Journal of Heredity*, V. 15, pp. 407-415.

[4]Frederick Adams Woods, "Evolution of the Human Mind," *Journal of Heredity*, V. 18, pp. 305-308.

Griffing,[5] in a study of "Education and Size of Family in China," more nearly approximates a population cross-section. His results are just contrary to the findings of the American studies. "For the regions studied," he states, "education of parents results in increase, rather than decrease in the number of living children. The groups from the highest cultural levels tend to leave the most survivors and reproduce substantially more than their own number."

In view of the fact that virtually all of the studies made on this question are confined to a selected group, and since certain students have suggested that the role of education in reducing fecundity has been over-emphasized to an extent not warranted by available facts, the material presented herein may be of interest.

The data are from American Fork and Ephraim. The town of Ephraim has a population of slightly over 2,000, while American Fork has slightly over 3,000. Agriculture is the basic occupation in both, although all of the chief occupational divisions, as used by the U. S. Census, are represented.

For making the study herein reported, only those schedules were used which gave the age of the mother as over 45 years.

The results for both towns and for both sexes are included in the accompanying correlation table. The sexes were tabulated separately at first but the results were so similar that they were combined in order to increase the size of the groups. The mean number of children for the male and female groups with no education, 1-4 elementary and college differed 0.3 to 0.4 of a child each and the 5.8 elementary and 1-4 high school were identical. The differences were not consistent.

The correlation secured (-.09) indicates that in these societies education has very little if any influence on the size of the families. This confirms the results of Brown and Greenwood on English Middle Classes.

If the figures in the table are arranged into the educational groups 0, 1-4 elementary, 5-8 elementary, high school, and college, the means are 5.3, 6.5, 6.2, 5.5, and 5.7 for the respective groups. This certainly does not indicate any tendency toward race suicide on the part of the better educated individuals, and it is very probable that were the population of the upper two groups fully represented, the differences would be even smaller than those given. A close study of the data will show that the elementary school groups are almost normal populations, whereas the others are more or less defective. The correlation table with adequate weighting is more likely to give the facts than are the means of the combined classes.

For the age group between 31 years and 43 years, where the family was still incomplete, those with elementary education only averaged about 4 children, and the high school and college groups, which were almost identical, were about 0.2 of a child less. The total number of individuals in these age groups was 578.

Influence of Occupation. It seemed probable that part of the differences in size of families was due to occupational groups. In

[5]J. B. Griffing, "Education and Size of Families in China," *Journal of Heredity*," V. 17, pp. 331-337.

these towns, the fathers over 44 years of age engaged in the professional occupations averaged about two years of college, the business men a little more than the seventh grade, the farmers between the sixth and seventh, and the laborers about the sixth grade. The mean children per male wage earner was 5.0 for the professional group, 6.0 for business men, 6.3 for farmers, and 5.7 for laborers. The professional group was too small to give reliable results, but others seemed to be normal population samples. The family sizes do not group themselves according to the education of the workers, but according to the occupation. Except that in this study business men had larger families than laborers, the results with respect to the influence of occupation on size of family agree with those of Baber and Ross[6] in Wisconsin.

Table XXIV. *Utah Parents Arranged According to Amount of Education Received in School and Number of Children Born to Them, and the Coefficient of Correlation for the Two Factors of Education and Fecundity.*

Degree of Schooling	No. of Children Born													Total
	0	1	2	3	4	5	6	7	8	9	10	11	12-over	
0	3	3	1	3	1	1	4	3	3		3	2		27
1						2		2	3		1			8
2	3			1		1		1	2		2	1	1	12
3	4	1	1	1	1	3	5	8	6	7	1	6	3	47
4	2	4	5		8	7	5	3	5	8	3		4	54
5	3	8	8	9	12	12	12	16	23	14	13	8	12	150
6	6		4	4	5	10	2	4	9	5	6	1	2	58
7	1	4	6	5	6	4	5	2	5	5	9	7	1	60
8	15	8	17	18	21	23	29	33	22	14	24	4	10	238
1 HS		3	6	10	4	10	15	4	7	12	1		1	73
2 HS	4	4	1	3	3	11	6	5	3	2	7	1		50
3 HS	1		3	1	3	1	5		3	3	1		1	22
4 HS		1	1	2	2	5	2	1						14
1 Col.			2	1		2	4					1	2	12
2 Col.			2		1	4	2			2	1		1	13
3 Col.		1			1	1								3
4 Col. and over			2	2	1	4	1		3	1				14
Total	42	37	59	60	69	101	97	82	94	73	72	31	38	855

Mean grade—7
Mean children—6.08
S. D. grade—3.04
S. D. children—3.19
r—.092 ± .019

[6]Baber, R. E., and Ross, E. A., "Changes in the Size of American Families in One Generation," *University of Wisconsin Studies in the Social Sciences*, No. 10, 1924.

Table XXV. *Average Number of Children Born, by Occupation of Father.*

Occupation	Both Towns		Ephraim		American Fork	
	No. Families	Av. No. Children	No. Families	No. Children	No. Families	No. Children
Agriculture	279	6.3	136	6.2	149	6.4
Professions	17	5.0	9	3.9	14	6.4
Day Laborer	163	5.7	69	5.3	94	6.1
Business	65	6.1	22	6.7	43	5.7

The results of Woods already noted, respecting the size of families of the exceptionally vigorous men, compare favorably with some statistics gathered by the questionnaire method from the leaders of the Mormon Church. These leaders, Bishops and Stake Presidents, are chosen for their positions from among the lay members of the Church. Naturally they are men of more than average ability, successful farmers, business men, and representatives from all the other occupations. Their time is divided between their vocations and their positions as Church leaders, the average amount devoted to Church work being about 15 hours a week.

Of those who responded to the questionnaire, 382 were over 44 years of age. Since almost all of these had received at least a full elementary education, only three groups are represented, the elementary, the high school, and the college. The results are given below:

Table XXVI. *Relation of Education to Fecundity of* 382 *L. D. S. Church Leaders.*

Education	Number of Children Born													Total	Mean
	0	1	2	3	4	5	6	7	8	9	10	11	12-over		
0-8th Grade	7		3	4	15	7	13	24	18	17	20	4	27	159	7.7
High School	1	1	3	3	14	17	14	17	22	11	9	9	13	134	7.3
College	4	1	5	4	11	7	15	14	11	7	5	2	3	89	6.2
Total	12	2	11	11	40	31	42	55	51	35	34	15	43	382	7.2

It is seen from this that these exceptional men have had families which average 1.1 more children than has the ordinary population shown in the correlation table. This is about what would be expected if this population acts similar to the exceptional Harvard men studied by Woods.

In connection with these exceptional men, a study was made of the survival of the children born. The mean children alive for the three groups, beginning with the lowest, was 6.6, 6.3, and 5.5. That is, the percentage survival was 85.7, 86.3, and 88.7. This might be anticipated because of the difference in intelligence of these parents, but it is at variance with the results secured by Baber and Ross in Wisconsin, where it was found that among some of the higher educated individuals, the percentage of children who died was greater than for some of those with lesser education.

While it is realized that the data herein presented are not comprehensive enough to warrant dogmatic statements, the results should bear at least as much weight as statistics gathered from highly selected groups by means of the partial returns usually secured by the questionnaire method, or from equally incomplete alumni records. The method employed in California, and reported by Holmes, of gathering information from each student registering for physical education gives a much more satisfactory sample from a select group than other methods; and Banker, in analyzing these results, comes to the conclusion that education is of minor importance in determining the size of the family. The result of this study of L. D. S. society sustains this conclusion. Vocation, social attitudes of the group, inherent physical vigor, economic considerations, religious ideologies, and other factors far outweigh education. Whatever else these statistics may show, one thing is certain: the families of Utah men and women who have had higher education are not committing race suicide. Their families average above five children born, and considerably over four and a half survive until after the parents are past the child-bearing age.

PART VII

INFLUENCE OF FORMAL SCHOOLING ON CONSUMPTION OF GOODS[1]

New utilities and techniques are constantly being introduced into our environment, and are either accepted or rejected by us. Whether or not we accept particular items at the time we are exposed to them depends upon a number of factors. Chief among these is our perception of their utility to us—our subjective valuation of them, as Bohm-Bawerk has said. This subjective valuation is quite largely an outgrowth of the intensity of our wants for the particular goods. And these wants, in turn, are in the main socially determined. It is true there are basic physiological needs which are independent of social experience; but the circulation of the vast majority of economic goods today depends upon socially determined or conditioned wants. It follows, therefore, that whatever affects the intensity of wants, or creates new ones, affects the standard of living.

The spread of the use of particular items in any material culture —a phenomenon we are considering in this article—is called by Tarde "imitation," by which term he seemingly meant to describe about the same process as contemporary anthropologists term "diffusion." It is a well-known principle of modern business that the rate of diffusion of any economic good can be affected by the devices of modern communication commonly known as advertising. What advertising does is, by the use of psychological techniques, to modify our wants, and thereby our buying behavior. Incidentally, it is significant that the

[1]The writer wishes to express his indebtedness to N. I. Butt, of the B. Y. U. Library staff, for special assistance on this chapter. The material constituted the basis for a paper before the American Sociological Society, December, 1928, included in the Proceedings of that body.

advertiser never sets out to increase the incomes of people; but rather goes directly to the task of conditioning their subjective valuations. He thereby recognizes in practice what many now hold in theory, that income is not the dynamic factor in determining standard of living. The important thing for the advertiser is to "lower the threshold of response."

We arrive at the inference, then, that the dynamic factors in the standard of living are the subjective valuations of people. These might be called attitudes, in the sense that they refer to "tendencies to act." They exist antecedent to any act of purchase or expenditure. It becomes a problem of interest, then, to discover any specific elements in our culture which tend to modify in any definite way or direction our subjective valuations.

It is in this connection that the data presented herein are apropos. It is of more than passing interest that several investigators have noted the influence on standard of living of the amount of formal schooling which people had received. Studies conducted in Utah confirm the results of other investigators who have pointed to the positive effect of formal schooling upon the utilization of goods which we usually associate with higher living levels.[2]

The treatment attempted here differs from that of most other investigations in this field in that it is not confined to a particular occupational or industrial group, but takes in all of the people residing in two farm-village communities in Utah. Ephraim has a population of slightly over 2,000, while American Fork exceeds 3,000. As we have seen from the population analysis, all of the major occupational groups are represented in the population. About 50 per cent of the family heads in American Fork and 60 per cent in Ephraim are farmers. Ephraim is somewhat removed from the urban centers of the state. It is on a branch line of a railroad, and the nearest town of 10,000 people is about 80 miles distant. American Fork is nearer the center of industrial life. It is 15 miles from a city of 10,000 and 35 miles from one of 150,000.

The heads of families used in this study were all more than thirty years of age. It was thought desirable, in order better to isolate the influence of the educational factor, to take only those who had had an opportunity to get established economically.

It is not pretended that this is a standard of living study in the usual sense of involving a complete analysis of income and expenditures. The items used are, however, parts of a material culture which are in the process of diffusion, and we feel that the results are as significant with respect to these items as they would be if they concerned price aggregates.

The families were arranged into groups with respect to the number

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[2]Kirkpatrick, E. L., "The Standard of Life in a Typical Section of Diversified Farming." Cornell University Experiment Station Bull. 423, (1923).

"The Farmer's Standard of Living," U. S. D. A., Dept. Bulletin 1466, (1926).

Thaden, J. F., "Standard of Living on Iowa Farms," Iowa Agricultural Experiment Station Bulletin 238, (1926).

of years of schooling received by the parents as follows: (1) both eighth grade or less; (2) one parent high school, other eighth grade or less; (3) both parents high school; (4) one college, other less than college; (5) both college. Then the percentage ownership of the various utilities by the groups was determined. These percentages are shown in Table XXVII.

Table XXVII. *Percentage of Certain Utilities Possessed by the Families in Two Utah Towns, Arranged According to Amount of Schooling Received by Parents.*

	Education														
	Both Towns					Ephraim					American Fork				
Total	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Families	502	153	131	69	16	208	77	81	28	8	294	76	50	41	8
Percentage Having															
Running water	58	67	81	94	100	54	71	80	96	100	60	62	82	93	100
Kitchen sink	41	50	69	86	94	36	55	68	86	100	45	45	72	85	88
Modern bath	31	44	56	72	81	23	51	49	71	75	37	38	66	73	88
Indoor toilet	31	43	56	70	81	23	48	49	64	75	37	38	68	73	88
Cesspool	29	42	59	75	81	24	49	53	75	75	33	36	68	76	88
Power-washer	62	82	85	84	88	61	82	81	89	100	62	83	90	80	75
Automobile	32	52	56	84	94	30	39	47	75	88	33	66	72	90	100
Telephone	24	33	50	65	75	19	35	46	57	75	28	32	56	71	75
Piano	27	42	48	68	69	25	42	42	64	38	29	42	58	71	100
Phonograph	39	48	53	67	50	36	57	53	50	38	41	38	54	78	62
Central heat	6	8	15	16	50	2	5	7	7	25	8	11	28	22	75

With one or two exceptions, the possession of the items increases proportionately with the advancing educational groups. More than eight times as large a proportion of the college-educated were equipped with central heating systems as was the case for the elementary-educated. The proportions for most of the other items are from about two to three times as great in the group with highest education. This is true for the families considered in the aggregate, or for both towns taken separately. The results for the two towns are about the same, with a few minor differences.

For one thing it is noted that for the item of central heat in the home, American Fork shows a considerably higher proportion. However, the trends for the different educational groups, in the case of this item, are very much the same. The difference in total proportionate possession between the two towns, usually in favor of American Fork, is worthy of note; but the significant fact is the similarity of trend with respect to the education of the parents.

Again, there is noted a disparity in the case of power-washers. Here again the general trend holds, but in the case of American Fork, the difference between the low and the high education groups is not

so marked as in the case of Ephraim. This might be due to the existence in American Fork of a commercial laundry, whereas, there is none accessible to the people of Ephraim. If this explanation be correct, it seems a good illustration of the operation of one of Tarde's "laws," which is, in effect, that the "imitation" (diffusion) of a new "invention" is modified by the existence in society of competing inventions.

Finally, in the case of American Fork, it is noted that the second education group (that is, the one in which one parent has some high school, with the other eighth grade or less) does show a proportionate rise in the case of most of the items. But while they fell down in the case of many items, they ran "true to form" in the case of automobiles and pianos. Nevertheless, in no case do they fall below the showing made by the group next below. As compared with Ephraim, all of the families in American Fork own proportionately more cars, but the greatest variance is for the second and third educational groups.

An interesting comparison which can be made from Table XXVII is the relative importance which different educational groups place upon the various items. Those with elementary education only have chosen to have phonographs in their homes in two-thirds as many cases as they have running-water in the home, whereas, the college educated families rank this item below any of the others except central heat. The elementary families placed the desirability of the phonograph only slightly below a sink in the kitchen, and considerably above a toilet in the home, a bathroom, or a cesspool. The high-school educated placed these items about on a par with the phonograph.

As compared with running-water, the elementary-educated parents placed a value of slightly more than 50 per cent on toilet in the house, bathroom, and cesspool. The college-educated ranked these at 80 per cent as desirable as running-water, and the intermediate groups had intermediate relative valuations. Except for the elementary-educated group, the kitchen sink appears to be only slightly more desirable than an automobile.

The data as a whole seem to indicate that, except in the case of the phonograph, the relative desirability of the different items is much alike; but the higher the education of the parents the greater the degree to which all of the desires are gratified. In case of the possession of only two items does the college-educated group fall to 50 per cent, whereas the elementary-educated group falls below 50 per cent possession in all except two items.

A study was also made of the relation of education to the proportion of homes with indebtedness and the average amount of the debt for those with homes encumbered. Using the education groups as previously, the percentages with debt are, respectively, 14, 17, 18, 39, and 31. This seems to indicate a rather pronounced tendency for those with higher education to live beyond their income. The mean amounts of indebtedness for the respective groups are $793, $865, $902, $1,176, and $1,050. Thus, not only does the percentage of those in debt but also the amount increase with the amount of education received. There is an exception in the case of the highest educational group, in which

case the numbers we are dealing with are so small as to make the sample rather unreliable.

To try to find whether this indebtedness on homes came through expenditures for home conveniences and luxuries, the data were compiled by items previously given for groups arranged in accordance with amount of indebtedness. The total numbers included were small and consequently the reliability of the results may not be as great as might be desired. The percentages for the different groups are given in Table XXVIII.

Table XXVIII. *Relation Between Amount of Debt on Home and Possession of Certain Utilities in Families Reporting Any Debt in Ephraim and American Fork, Utah.*

Total Families	Amount of Debt on Home (Dollars)				
	1-499	500-999	1,000-1,499	1,500-1,999	2,000 and Over
Percentage Having	(49)*	(46)	(35)	(8)	(15)
Running water	49	59	74	100	87
Kitchen sink	20	41	69	100	87
Bathroom	14	30	54	75	80
Indoor toilet	14	30	51	75	80
Cesspool	16	30	51	75	80
Power-washer	71	80	89	75	80
Automobile	41	56	69	63	80
Telephone	20	46	46	75	60
Piano	20	33	49	50	40
Phonograph	27	54	60	38	40
Central heat	2	4	17	----	13

*Number of cases in the group.

Possession of the first five utilities in the list bears a marked relation to the amount of debt on the home. These items are such as would be included in the construction of modern homes in these communities. While the data at hand do not permit us to verify the conclusion, it is more than plausible that the upper ranges of debt have been incurred in connection with recently constructed homes. Putting these facts together with those found in connection with our study of the education groups, we are led to the inference that the higher the education the more likely are the individuals to demand "modern" homes, even though they must go into debt.

There is also a marked relationship between the percentage ownership of automobiles and the amount of debt. The car apparently is competing strongly for the unearned dollars, but is not yet ranked by this group alongside home conveniences, although it is admitted that if we had the figures for total indebtedness, the picture might appear different.

In the groups with less than $1,500 indebtedness the proportion of pianos and phonographs increases with the amount of encumbrance, but above this amount the proportion remains the same or falls.

In general these data seem to indicate that schooling speeds up the distribution of certain items in our material culture, and that the higher the education the greater is this acceleration and the more pronounced is the tendency for wants to outrun immediate ability to pay.

Any standard of living is the result of the number and intensity of wants for the utilities and services embodied in it. These wants are socially determined. The school is only one agency at work in society, but in conditioning the wants related to the specific items used in this study, the results indicate that it is of considerable importance.

PART VIII

A STUDY OF THE SOCIAL EFFICIENCY OF RELIGIOUS INSTITUTIONS IN A MORMON VILLAGE

Social life in Mormon communities is inevitably influenced by the Church organization. This elaborate structure, which the writer has described in detail elsewhere in this series of studies,[1] is designed to reach the entire population. For example, the regular Sunday sacrament service is for all members of the Church; the Sunday School especially reaches the younger group, but also provides classwork for members of all ages from kindergarten to the parents' class; the Mutual Improvement Association reaches the young men and women chiefly from 12 to 25 years of age, but also provides an adult class for the upper ages (this organization meets Tuesday evenings); the Primary association offers week-day instruction, once a week, to children; the Relief Society provides Tuesday afternoon classwork for the married women of the Church; while the Priesthood quorums offer weekly instruction meetings for all male members of the Church 12 years of age and over. The Seminary is an institution maintained by the Church near the public high school to provide daily religious instruction to students of the institution.

A study of attendance at these various Church functions obviously offers some measure of the socializing efficiency of the Mormon village. The following pages present a summary of such a study which was projected and carried through by Mr. Nathan L. Whetten, a graduate student working under the direction of the writer.[2]

Method of Study. For the purpose of the study, it was decided that the roll books of the various organizations constituted the most reliable source of information. While it is true that some inaccuracies creep into roll books, it must be admitted they are much more trustworthy than the memories of the various communicants. Roll books are kept in all of the organizations enumerated in the opening paragraph of this chapter, with the exception of the sacrament meeting. In this

[1] "A Social Survey of Escalante, Utah," *B. Y. U. Studies*, No. 1.

[2] The results of this study were used by Mr. Whetten as a master's thesis at Brigham Young University, and was entitled, *"Response of a Mormon Village Population to Religious Institutions, as Measured by Attendance at Meetings."* (1928).

case, the cooperation of the ward clerk was secured to make a record of this attendance for a period of four months. The attendance record thus secured was multiplied by three to calculate the yearly attendance.

After securing the rolls, individual cards were made for each member of the Church in American Fork who was old enough to be enrolled. Upon this card was placed the number of times the individual had attended various organizations of the Church during the previous year. On each card was also placed the sex and age of the person, as well as the Ward[3] to which he or she belonged. This facilitated the statistical treatment of the data, since the relation of attendance to sex, age, and ward affiliation could be determined.

The project aimed to answer the following questions:

1. How many actual person-hour-contacts are provided by the Church organizations in American Fork and to what extent do individuals participate?

2. How are these contacts distributed among units of the population, such as age groups, sex groups, and locality or Ward groups?

3. How do the several organizations compare in effectiveness in providing social contacts?

The age groups were limited to three. "Adults" were designated as those twenty-one years of age or over; in the category of "adolescence" were placed those from thirteen to twenty years, inclusive; and in the class of "children" were placed all those twelve years of age or less.

Results of the Study. Of the 2,632 members of the Church on record—that is, over four years of age—in American Fork in 1926-27, the rolls show that 2,425 had attended at least one meeting during the year. There were, therefore, 209 individuals, or 8% of the total identified as members of the Church above four years of age, and therefore eligible to attend meetings or classes conducted by the Church, who were not reached at all through the formal organizations.[4] Table XXX indicates the distribution of the Church membership according to hour-contacts with the Church. Nearly a fourth of the members, 23%, had ten or fewer hours of Church attendance. Over 62% attended 50 hours or less.

On the other hand, there were 23 people who spent as much as 231 or more hours. Those who had 240 hours to their credit spent the equivalent of 30 eight-hour days in Church. In fact, the Church

[3]It is well to note that American Fork is subdivided into four ecclesiastical Wards, each of which is presided over by a Bishop and two councilors.

[4]Landis, in his survey of *"Rural Church Life in the Middle West"* (1922), found that in the 33 Protestant congregations studied, 13% of the total membership was inactive. The American Fork figure of 8% may be a trifle large for the reason that it represents in part an estimate rather than an actual individual record for each member. As previously explained, the attendance at sacrament meetings was kept for four months and the yearly attendance calculated from the four-month base. While the total number of person-hour-contacts might be fairly accurate, the total number of different individuals attending might be slightly larger than the estimate indicates.

provides that any individual, male or female, old or young, may spend practically that much or more time in Church in a year. Table XXIX is constructed merely to show the facilities for contacting its members in formal meetings which the Church offers. In addition, it provides for many hours of informal contact in various ways, including Church-promoted festivals, reunions, conferences, dances, dramas, debates, and musical entertainments.

Table XXIX. *The Total Number of One-hour Contacts Which the Church Provides in One Year for Various Age and Sex Groups.*

Name of Organization	Total Hours per Year						Number of Religious Meetings					
	Male			Female			Male			Female		
	Adult	Adolesc.	Child	Adult	Adolesc.	Child	Adult	Adolesc.	Child	Adult	Adolesc.	Child
Total	222	272	195	246	252							
Sunday School	75	75	75	75	75	50	50	50	50	50	50	50
Sacrament Meeting	72	72	72	72	72	72	48	48	48	48	48	48
Priesthood	30	30	(a) 4				30	30	30			
M. I. A.	45	45	(a) 6	45	45		30	30	30	30	30	
Relief Society				54						36		
Primary			38		(b) 10	38			38		38	38
Seminary		(c) 50			(c) 50			150			150	

(a) = 1/8 of total. Only about 1/8 of the male children over 4 years of age are eligible to attend.
(b) = 1/4 of total. Only about 1/4 of the female adolescents are expected to attend.
(c) = 1/3 of total. The Seminary gives only three years of study and only those of high school age are admitted.

Table XXX. *Frequency Table of One-Hour Contacts Developed by All Church Organizations Over a Period of One Year, by Age and Sex Groups.*

Number of Hours	All								Males								Females							
	Total		Adult		Adoles.		Chi.d		Total		Adult		Adoles.		Child		Total		Adult		Adoles.		Child	
	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons	Per-cent	Per-sons
Total	100	2423	100	997	100	568	100	858	100	1139	100	417	100	282	100	439	100	1285	100	580	100	286	100	419
1-10	23.1	562	30.7	306	15.7	89	19.5	167	28.4	324	38.0	160	24.0	68	21.8	96	18.5	238	25.0	146	7.3	21	17.0	71
11-20	14.2	343	16.2	162	11.6	66	13.4	115	15.0	171	16.0	67	12.8	36	15.5	68	13.4	172	16.4	95	10.5	30	11.2	47
21-30	11.4	277	12.6	126	11.4	65	10.0	86	10.7	122	9.6	40	11.0	31	11.6	51	12.0	155	14.8	86	12.0	34	8.4	35
31-40	8.7	210	8.6	86	9.1	52	6.3	72	9.1	104	7.2	30	11.4	32	9.6	42	6.2	106	9.7	56	7.0	20	7.2	20
41-50	7.5	182	6.4	64	5.6	52	10.0	86	6.9	79	4.3	10	5.3	15	10.5	46	8.0	163	7.9	46	6.0	17	9.6	40
51-60	5.4	131	5.2	52	3.7	21	6.7	53	4.7	53	4.6	19	4.3	12	5.0	22	6.0	76	5.7	33	3.1	9	8.6	36
61-70	6.2	152	5.1	51	5.4	31	6.1	70	5.8	66	5.5	23	4.6	13	6.6	30	6.7	86	4.9	28	6.3	18	9.6	40
71-80	4.8	117	2.9	29	5.8	33	6.4	55	3.0	34	1.9	8	2.8	8	4.1	18	6.5	83	3.6	21	8.7	26	8.8	37
81-90	3.5	84	2.5	25	3.5	20	4.6	39	2.7	31	2.6	11	2.1	6	3.2	14	4.1	53	2.4	14	4.9	14	6.0	25
91-100	3.5	86	1.5	15	3.7	21	5.7	49	3.0	34	1.0	5	2.5	7	5.0	22	4.0	51	1.7	10	4.9	14	6.4	27
101-110	2.6	62	1.9	19	3.5	20	2.7	23	2.1	24	1.9	8	2.3	7	2.3	9	3.0	38	1.9	11	4.6	13	3.3	14
111-120	1.9	47	2.0	20	2.4	14	1.5	13	1.5	17	1.7	7	1.8	5	1.1	5	2.3	30	2.0	13	5.2	9	1.9	6
121-130	1.7	42	1.3	13	2.6	15	1.6	14	1.8	19	1.0	6	1.8	5	1.8	8	1.8	23	1.2	7	3.5	10	1.4	6
131-140	.9	21	1.0	10	.9	5	.7	6	.8	9	1.0	4	.7	2	.7	3	.9	12	1.0	6	1.0	3	.7	3
141-150	.7	18	.8	8	1.6	9	.1	1	.8	9	1.2	5	1.0	3	.2	1	.7	9	.5	3	2.0	6	----	----
151-160	.3	8	.4	4	.4	2	.2	2	.5	6	.7	3	.4	1	.5	2	.2	2	.2	1	.4	1	----	----
161-170	.5	13	.4	4	1.4	8	.1	1	.4	5	.5	2	.7	2	.2	1	.6	8	.3	2	2.0	6	----	----
171-180	.3	7	.1	1	.9	5	.1	1	.4	5	.2	1	.1	3	.2	1	.2	2	----	----	.7	2	----	----
181-190	.4	10	.1	1	1.6	9	----	----	.3	3	----	----	1.0	3	----	----	.5	7	.2	1	2.0	6	----	----
191-200	.3	6	.1	1	.9	5	----	----	.3	3	----	----	1.0	3	----	----	.2	3	.2	1	.7	2	----	----
201-210	.4	9	----	----	1.6	9	----	----	.5	6	----	----	2.0	6	----	----	.2	3	----	----	1.0	3	----	----
211-220	.4	9	----	----	1.6	9	----	----	.5	6	----	----	2.0	6	----	----	.2	3	----	----	1.0	3	----	----
221-230	.2	5	----	----	.9	5	----	----	.1	1	----	----	.4	1	----	----	.3	4	----	----	1.5	4	----	----
231-240	.4	9	----	----	1.6	9	----	----	.4	4	----	----	1.0	4	----	----	.4	5	----	----	2.0	5	----	----
241-250	.2	4	----	----	.7	4	----	----	.1	1	----	----	.4	1	----	----	.2	3	----	----	1.0	3	----	----
Over 250	.4	10	----	----	1.8	10	----	----	.2	2	----	----	.7	2	----	----	.6	8	----	----	2.8	8	----	----

The total number of one-hour contacts made with members by the Church organization in the year is 108,438. Averages mean little in a case of this kind, but it is interesting to observe that the average hours attended per year for the 2,425 people amounts to about 44. This is less than 1 hour a week.

Among the various organizations considered in the study, the data indicate that the Sunday School is securing the largest number of contacts. In fact, nearly one-half of the total hour contacts may be attributed to this organization.

The Sunday School is rather effective in making contacts with all groups in the population, but is primarily attended by the children and adolescents. With adults, the Sunday School is exceeded in efficiency only by the Sacrament service which is primarily an adult meeting. Moreover, it is shown in Table XXXI that for the total Church membership, the Sunday School makes a higher average number of contacts than does any other organization.

Who are the Church goers? This study shows that the women generally secure more contacts with the Church than do the men. In the case of the adults, the women attend more than one and one-half times as frequently as do the men. In the adolescent group, the difference is not so marked but such difference as does exist favors the girls, the latter receiving 90 hours on the average to 66 for the boys. The difference is still less as between girls and boys under twelve years of age. Indeed, the difference is slight, 50.5 for the girls and 49.1 for the boys.

Table XXXI. *The Total Number of Person-Hour Contacts Produced by the Various Church Organizations Over a Period of One Year, by Age and Sex Groups.*

Name of Organization	Grand Total	Total		Adult			Adolescent			Child		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	108,438	46,266	62,172	32,966	13,284	19,682	39,886	15,831	24,055	35,586	17,151	18,435
Priesthood	4,450	4,450	----------	1,909	1,909	----------	1,509	1,509	----------	1,032	1,032	----------
Sunday School	49,041	21,039	20,002	10,210	4,575	5,635	15,389	5,602	9,787	23,442	10,862	12,580
Primary	9,175	2,643	6,532	985	----------	985	980	----------	980	7,210	2,643	4,567
M. I. A.	11,142	4,060	6,282	3,240	1,272	1,968	6,477	2,163	4,314	1,425	1,425	----------
Seminary	12,783	5,376	7,357	----------	----------	----------	12,733	5,376	7,357	----------	----------	----------
Sacrament Meeting	17,404	7,898	9,506	12,129	5,528	6,601	12,798	1,181	1,617	2,477	1,189	1,268
Relief Society	4,493	----------	4,493	4,493	----------	4,493	----------	----------	----------	----------	----------	----------

Table XXXII. *Average Number of Person-Hour Contac ts per Individual Produced by the Various Church Organizations Over a Period of One Year, by Age and Sex Groups.*

Name of Organization	Grand Total	Total		Adult			Adolescent			Child		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total No. of Indiv.	2,632	1,297	1,355	1,417	708	909	501	240	261	714	349	365
Total	41.2	35.6	46.8	23.2	18.8	27.8	79.6	66.0	92.0	49.8	49.1	50.5
Priesthood	1.7	3.4	———	2.7	2.7	———	6.3	6.3	———	3.0	3.0	———
Sunday School	18.6	16.2	21.0	7.2	6.5	7.9	30.7	23.3	37.8	32.8	31.1	34.5
Primary	3.5	2.0	4.9	1.4	———	1.4	3.8	———	3.8	10.1	7.6	12.5
M. I. A.	4.2	3.7	4.7	2.3	1.8	2.8	12.9	9.0	16.5	———	4.0	———
Seminary	4.8	4.1	5.5	———	———	———	25.4	22.4	28.2	———	———	———
Sacrament Meeting	6.6	6.0	7.1	8.6	7.8	9.3	5.6	4.9	6.2	3.5	3.4	3.5
Relief Society	1.7	———	3.4	———	———	6.3	———	———	———	———	———	———

From the standpoint of age, it is apparent that the adolescents are the ranking group. Next in order are the children, while the adults form a rather weak third class. The Church contacts an adolescent boy almost four times as often as an adult male. A girl is reached five times as frequently as is a man. The Church is more interested in contacting adolescents, judging from the fact that it provides 272 possible opportunities for male adolescents to attend while only 222 are available for adult males. This number is high because of the existence of the Seminary which provides contact daily during the school year. While only 115 or 23% of the adolescents of American Fork were enrolled in the Seminary, it accounted for 12,753 person-hour contacts.

The four Wards differ in efficiency in making contacts. The extent of the difference is shown in Table XXXIII.

It is beyond the province of this discussion to account for this disparity, but the following factors are suggested as being important:

1. Size of Ward. The Third Ward is smallest, and its efficiency as measured by average contacts per member, greatest.

2. **Density of Population and Accessibility to Church.** The population of the Fourth Ward is most scattered and the average distance to Church is accordingly greater than is the case in the other Wards.

3. **Leadership.** This probably is the most influential factor. Generating Church attendance is accomplished more readily by some personalities than others. It is obvious that the four administrators of these Wards will vary in their powers to motivate the group, as well as in their powers to select capable subordinates.

Table XXXIII. *Total Number of One-hour Contacts in the Various Wards Over a Period of One Year, by Sex and Organization.*

Name of Organization	Grand Total	1st Ward			2nd Ward			3rd Ward			4th Ward		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	108,438	28,667	10,874	17,793	24,333	11,160	13,173	28,325	12,449	15,876	27,113	11,783	15,330
Sacrament Mtg.	17,404	4,109	1,701	2,408	4,711	2,182	2,529	3,671	1,645	2,026	4,913	2,370	2,543
Sunday School	49,041	12,953	5,452	7,501	10,853	4,535	6,318	13,383	5,868	7,515	11,852	5,184	6,668
Relief Society	4,493	1,107	----------	1,107	779	----------	779	1,766	----------	1,766	841	----------	841
Priesthood	4,450	869	869	----------	1,333	1,333	----------	1,140	1,140	----------	1,108	1,108	----------
M. I. A.	11,142	2,980	975	2,005	2,680	1,368	1,312	2,721	1,346	1,376	2,761	1,172	1,589
Primary	9,175	3,689	1,142	2,547	1,364	192	1,172	2,884	1,067	1,817	1,238	242	996
Seminary	12,733	2,960	735	2,225	2,613	1,550	1,063	2,760	1,384	1,376	4,400	1,707	2,693

Table XXXIV. *The Average Number of One-hour Contacts Per Individual in the Various Wards Over a Period of One Year, by Sex and Organizations.*

Name of Organization	Grand Total	1st Ward			2nd Ward			3rd Ward			4th Ward		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Population of Ward	2,919	713	385	328	758	371	387	615	321	294	833	411	422
Total	37.2	40.2	28.2	54.2	32.1	30.0	34.0	46.0	38.8	54.0	32.5	28.7	36.3
Sacrament Mtg.	6.0	5.8	4.4	7.3	6.2	5.9	6.5	6.0	5.1	6.9	5.9	5.8	6.0
Sunday School	16.8	18.2	14.2	22.9	14.3	12.2	16.3	21.7	18.3	25.6	14.2	12.7	15.9
Relief Society	1.5	———	———	3.4	———	———	2.0	———	———	6.0	———	———	2.0
Priesthood	1.5	———	2.3	———	———	3.6	———	———	3.6	———	———	2.7	———
M. I. A.	3.8	4.2	2.5	6.1	3.5	3.9	3.4	4.4	4.2	4.7	3.3	2.9	3.8
Primary	3.1	5.2	3.0	7.8	1.8	.5	3.0	4.9	3.3	6.2	1.5	.6	2.4
Seminary	4.3	4.2	1.9	6.8	3.4	4.2	2.7	4.5	4.3	4.7	5.3	4.2	6.4

The Ideal Church-goer and the Actual. If a member of the Church attended all of the meetings provided by the Church, that member on the average would spend the equivalent of about one month of eight-hour days out of twelve in meetings. This would not include the time spent in "outside" enterprises, or in informal exercises such as dances, plays, and other entertainments. The hour-contacts provided for various groups in a year, as well as the relation of performance to perfection, are indicated in Table XXXV.

Table XXXV. *The Hour-Contacts Provided by Formal Church Meetings in a Year for Various Groups, and the Ratio of Actual Performance to Possibility.*

	Avg. of all Groups	Male			Female		
		Adult	Ado-lescent	Child	Adult	Ado-lescent	Child
Possible Attendance Hours	227	222	272	195	246	252	185
Actual Attendance Hours	41.2	18.8	66	49.1	27.8	92	50.5
Percent of Perfect Score	18	8	24	25	11	37	27

Summary.

1. There is a wide difference in the attendance of members of the Church at meetings in American Fork. While ninety-two per cent of the membership over four years of age attended at least one meeting during the year, the number of hour-contacts varied between 1 and over 250. Attendance is irregular.

2. The Church contacts the female portion of the membership much more regularly than it does the male portion. For those members who attend regularly, the difference between males and females is not so great; but there is a larger number of males than females who never attend at all.

3. Adolescents are contacted more than any other age group in the population, undoubtedly due to the week-day religious instruction provided in the Seminary for high school students. Girls attend more than boys.

4. Children of both sexes are contacted by the Church to about the same extent, male children averaging 49.1 hour contacts and female averaging 50.5 hour contacts.

5. Of the organizations of the Church considered in the study, the Sunday School produced the greatest number of social contacts with a total of 49,041 hour-contacts. Sacrament meetings came next with 17,404, followed by the Seminary with 12,733. The M. I. A. produced 11,142 contacts, the Primary 9,175, Relief Society 4,493, and the Priesthood 4,450.

6. The four ecclesiastical Wards vary in the number of hour-contacts produced with the members, from 46 hour-contacts in the

Third Ward, to 40.2 contacts in the First Ward, 32.5 contacts in the Fourth, and 32.1 in the Second.

7. In comparison with other sections of the United States, American Fork religious institutions show higher efficiency in making contacts with the population.[5] This superiority is probably due to the following factors: (a) the meetings are held regularly; (b) the relatively large number of religious organizations bidding for the member's attention; (c) graded class work in most of the teaching organizations make the program attractive; (d) programs involving outside activities are often initiated in the class, so that interest is secured through the by-products of the class-work; (e) the large number of leaders, making a roster when complete of 500 officers and teachers in the community, provides an additional pull on members.

8. Of the total opportunities for social contacts provided by the Church, the members utilized on the average only 18 per cent. The adult males used 8 per cent of their attendance opportunities, which was the lowest utilization of any group. The greatest utilization of attendance opportunities was achieved by the female adolescent group, followed by the female child group and the male child group, respectively.

[5]This statement is made after reducing the "hour-contacts" to a "times attended" basis, and comparing American Fork with data from thirty-two other localities in the United States, as given in C. Luther Fry, *"Diagnosing the Rural Church,"* George H. Doran Company, N. Y. (1924) p. 108.

PART IX.

SUMMARY AND CONCLUSIONS

1. This study of American Fork is the third in a series projected in 1924 and designed to give a description of typical, rural Mormon villages or communities.

2. Mormon villages are unique in the fact that they are dwelling places for farmers who cultivate the adjacent farm lands. Their origin dates back to the "Plan of the City of Zion" which came into being in Kirtland, Ohio, in 1833 and which was to constitute the plan for establishing in Missouri an ideal and sacred city. Back of the creation of this city plan were the Millennial and eschatological ideologies of the Mormon people. Since Zion, to the Mormons, was the whole American continent, cities of Zion could logically be established any place. Consequently, this pattern for the original city became the blue print after which Brigham Young laid out Salt Lake City. Other Mormon communities up and down the Great Basin and the intermountain west followed its general plans.

3. American Fork is located in the leading Agricultural county of Utah and is only thirty miles from Salt Lake City. It was settled in 1850. The first settlers underwent the usual rigors of pioneering, including the necessity of defending themselves against hostile Indians. During the Indian War they built a fort and all of the families lived within its walls.

4. While the economic foundation of the community was agriculture, American Fork Canyon, only a few miles from the townsite, contains rich ores which have contributed much to the economic life of the city.

5. There are two land systems in Utah, the one established in 1847 by the Mormons, and the Federal system, which is superimposed upon it. No land was officially patented in the State for at least twenty-two years after the original settlement. The Homestead Act, passed in 1862, made it possible for the Mormon settlers to acquire their land, if they chose, under its provisions. Land was also patented under the provisions of the Acts of 1820, 1855, 1867, and July 2, 1862.

6. The small individual holdings constitute one of the interesting characteristics of Mormon land tenure. It was customary in the establishment of a community for the first settlers to divide the land equally. Owing to the necessity of irrigating the land, only small tracts could be made available at a time. Moreover, when other settlers came in, the land was frequently sub-divided or redistributed, which still further reduced the acreage available for each family.

7. Another feature of Mormon land tenure of unusual interest is the fact of divided holdings. This phenomenon is not as common in American Fork as it is in Ephraim. Still there are farmers in American Fork who have their land in as many as five pieces. In Ephraim over half of the farmers have their land in two or more pieces and fifteen of them have their farms divided into eight different pieces located in different sections of the country round about.

8. Tenancy is not a significant factor in the Mormon community at the present time. Only twelve percent of the farms in American Fork are operated by tenants. Because of the high ratio of tenants who are related to landlords in Utah, generally, (amounting to 41.1 percent in 1930 which is second highest in the nation) we can safely assume that at least a third of the tenants of American Fork are, likewise, related to their landlords.

9. The tenure of land is fairly persistent in American Fork. While nearly a fourth of those classified as owners have owned their farms less than five years, the other three-fourths are rather well distributed over the various periods of time up to sixty years. The percentage of farms reporting debt in 1928 was only thirty in American Fork, whereas it was over forty in Ephraim. A possible explanation of this fact is that the Ephraim farms are more nearly in the sub-marginal class because of shortage of irrigation water and more largely dependent upon the range livestock industry, especially sheep. The sheep industry is notoriously subject to extremes in economic fluctuations and this fact may have something to do with this greater tendency toward the farm mortgage in Ephraim.

10. The farmers in American Fork have less distance to travel to get to their farms than do those in Ephraim or Escalante.

11. Of the homes in American Fork, eighty percent are owned and of the 528 families who own their homes, one hundred and eleven reported having some debt. Since this was in 1928, the figures cannot be taken as applicable today. Undoubtedly the tendency to mortgage during the depression has increased.

12. As is true in the case of practically every Mormon Community, the economic life is, to a large extent, dependent upon grazing land adjacent to the valleys. Part of these lands are administered by the National Forests where restricted grazing is allowed under permit. Then there are the vast areas of public domain which are used by the livestock men for winter range. Over-grazing on the public domain threatens to destroy its usefulness unless some immediate action is taken by the Federal Government or by the States to regulate its use. As the value of the forage on the winter range grows less, the number of livestock that the owners in American Fork can maintain is proportionately cut down.

13. While the population of American Fork has grown steadily since its founding in 1850, it is rapidly approaching the point where no further increase can take place. The development of the poultry industry during the past decade has greatly expanded the economic life of the community and made possible the maintenance of a larger number of people than would have been the case without this industry.

14. There is a slightly larger percentage of the population of American Fork in the age group under fifteen years than is true either for Ephraim or the State as a whole. Ephraim exceeds American Fork in the percentage of its population in the age group 15 to 24, 25 to 34, and 45 to 64. American Fork has more people between thirty-five and forty-four years of age and 65 years and over. While

the number of people sixty-five years and over in all of the communities is doubtless increasing it is an interesting fact that American Fork contained in 1928 seven and two-tenths of its population in this class compared with four and four tenths percent in the State as a whole in 1930.

15. Farm and non-farm populations in the community offer an interesting comparison. The non-farm population contains more people under twenty-five years of age, as well as excelling in the age group 25 to 34, 35 to 44, while the farm population of American Fork excels in the upper age groups. This is very likely due to the fact that the non-farm groups in a Mormon rural community are made up of the children of farmers who are attempting to find their economic life in other than agricultural pursuits pending the time when they might acquire, by inheritance or purchase, a farm of sufficient size to give them a livelihood. They constitute the day-laborers, for example, who find employment where they can; working in the hay fields in the summer time, in the sugar-beets in the fall, and herding sheep in the winter. Since these percentages in American Fork agree in the main with those for the community of Ephraim, one is inclined to think of the non-farm group as representing a class comparable in its economic status to the cotters on the medieval manor. Many of these people will undoubtedly inherit the family farm so that their present status can be safely regarded as only temporary.

16. Males predominate in American Fork, as they do in Ephraim, but not to the same degree. There are 105.7 males to each 100 females in American Fork, whereas in Ephraim the ratio was 108.8 to 100. The ratio for Utah is 106.8 to 100.

17. Practically all the major occupational groupings are represented in American Fork. Agriculture of course is the predominant occupation, although it is not so dominant in American Fork as was the case in Ephraim. Escalante, a smaller community than Ephraim, had a still larger percentage (77.8) of its people engaged in agriculture. In other words the larger the community the more highly differentiated is the population and the less the total percentage engaged in agriculture.

18. The rate of marriage for females in American Fork is consistently greater than males for the age groups under forty-five years, but above that point the males predominate in the percentage of their number in the married state. The total percentage of the American Fork population over fifteen years of age who are married is 62.5 for the males and 62.8 for the females. Comparable percentages for Ephraim are 59.1 and 60.6. Widows outnumber the widowers by more than two to one in both Ephraim and American Fork. This undoubtedly reflects the element of choice which still rests with the male, who will usually choose a second mate, whereas the woman may not get another chance. It is due to the further fact, also, that the death-rate for men is higher, generally, in all age groups than is the death-rate for women.

19. The six hundred and sixty families of American Fork average

five children born. The most frequent number of children in the family is two, but the higher groups contain relatively high percentages. There are more total children represented in the ten-children families than in any other group.

20. The causes of death in American Fork correspond rather closely with those of the nation. Pneumonia is the leading cause followed by heart disease, influenza, acute neuritis and brights disease, accidents, cancer, tuberculosis, in the order named.

21. The homes of American Fork average 4.6 rooms per house. There are 4.4 persons per household which means that on the average there is slightly more than one room per person. This compares with .9 of a room per person in Escalante and about 1.2 rooms per person in Ephraim, where the household averages 5 rooms and 4.2 persons.

22. The amount of education possessed by parents does not seem to affect significantly birth rates in the Mormon community. There was practically no correlation between these two factors. This is contrary to the findings of those who have studied college alumni, but the present study is not strictly comparable in that it represents a complete cross-section of the society rather than that of a select group.

23. Occupation of the father seems to bear a closer relation to the size of the family. Agriculture ranks highest in the number of children born, business is second, laborers third, and professions fourth. The amount of formal schooling possessed by parents affects the standard of living in a positive direction. In general the more formal schooling parents have the more likely they are to possess certain utilities associated with a high standard of living. Also the more likely they are to contract away their future earnings in order to satisfy their wants for present goods.

24. There is a differential fertility between the farm and non-farm classes of the community showing a slight superiority in favor of the latter. Those families in which the father gave his occupation as farmer are more mature however, and are more likely to be more nearly "filled."

25. The average birth rate in American Fork over a ten-year period was 36.8 and the death rate 12.3 per thousand. This leaves the unusually high natural increase of 24.5. This represents a higher natural increase than that in Ephraim although the figures for it were gathered three years earlier and are not, therefore, entirely comparable.

26. This high vitality for the Mormon people has many significant aspects. Under conditions which prevailed in the pioneer days, the children, even of large families, could depend upon finding economic opportunities in or near the home town. Today, however, conditions are vastly different. Of the natural increase of 676 people in the ten-year period under consideration, American Fork could absorb only 351, assuming there was no immigration into the community from the outside. Three hundred and twenty-five of them, in other words, were forced to migrate. In Ephraim, this condition was even more acute since the community was able to absorb relatively few of the people it produced.

27. The question arises, therefore, as to where these people might go. During periods of prosperity the cities and industrial centers can take care of the rural over-flow. During depressions the flow is reversed. It may well be that the net result of the back-wash of population from the city will be a permanent increase for the rural sections. With governmental restrictions being placed upon agricultural production this can mean only one thing: namely, that those resources which do exist in the rural areas will have to be shared with a larger number of people, and that will result in a lowered standard of living.

28. If the government program for "subsistence homesteads" is not accompanied by a concomitant decentralization of industry, the fate of the American standard of living looks anything but bright. This applies to the Mormon community with especial significance because thousands of Mormon families are now living on what virtually amounts to subsistence homesteads.

29. The results of these studies of Mormon villages point definitely to the need for an enlarged program of social research to reveal more specific trends in village development. The results of such research might prove valuable to the Federal Government in its search for a more satisfactory social mechanism for properly utilizing our greatest national resource—the land.

30. From the standpoint of Mormon culture a comprehensive program of social research can be of inestimable worth. With the efficient machinery of social control now existing in the Mormon communities the important need is for a program based upon realities. These realities can be revealed only through patient research. For example, the Mormon group is very solicitous of the welfare of the family as a social unit. Yet there is nobody who knows exactly how that solicitude might be effectively expressed. Nobody knows what is happening to the family. Many people have opinions about the subject, but precise factual data are lacking. To set up a program of action based upon opinion and casual observation might easily do more harm than good, and result in a great waste of human effort as well as money. A well-planned and well-executed research project on the family would reveal valuable data upon which a program could be established. This same logic applies to all phases of our social life.

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